

FLYING MINUTE MEN

THE STORY OF



ROBERT E. NEPRUD

PROPERTY OF
OFFICE OF AIR FORCE HISTORY

FLYING **MINUTE MEN**

THE STORY OF
THE CIVIL AIR PATROL

BY ROBERT E. NEPRUD

CARTOONS BY ZACK MOSLEY

*AUTHORIZED BY THE CIVIL AIR PATROL
AND THE UNITED STATES AIR FORCE*

*Prepared for
the Director of Public Relations
Department of the Air Force
Washington, D.C.*

DUELL, SLOAN AND PEARCE
New York

COPYRIGHT, 1948, BY
CIVIL AIR PATROL

*All rights reserved, including
the right to reproduce this book
or portions thereof in any form.*

Revised and Reprinted
by the
Office of Air Force History
United States Air Force
Washington, D.C., 1988

PICTURE CREDITS

*All photographs are Official United States
Air Force photos, except:*

Page 3 (upper & lower)—Phillip Gordon
Page 7 (lower)—Schauble-Nelson
Page 8 (upper & lower)—Texas Forest Service
Page 9 (lower)—Jack R. Moore Co.
Page 10 (upper), page 11 (lower), page 13—Art Keil & Assoc.
Page 12 (lower)—Press Association Inc.
Page 15 (lower)—McClellan Photo Co.

PRINTED IN THE UNITED STATES OF AMERICA

Extract

(PUBLIC LAW 476—79th CONGRESS)

(CHAPTER 527—2d SESSION)

(H. R. 5744)

AN ACT

To incorporate the Civil Air Patrol

SEC. 2. The objects and purposes of the corporation shall be—

(a) To provide an organization to encourage and aid American citizens in the contribution of their efforts, services, and resources in the development of aviation and in the maintenance of air supremacy, and to encourage and develop by example the voluntary contribution of private citizens to the public welfare;

(b) To provide aviation education and training especially to its senior and cadet members; to encourage and foster civil aviation in local communities and to provide an organization of private citizens with adequate facilities to assist in meeting local and national emergencies.

CONTENTS

FOREWORD by General of the Army Henry H. Arnold	
I. DEATH ON THE DOORSTEP	9
II. CIVILIANS WITH WINGS	21
III. THE 48 STATES	27
IV. FROM MAINE TO MEXICO	35
V. BORDER SENTINELS	47
VI. BULLETS FOR BREAKFAST	54
VII. FLYING PONY EXPRESS	63
ILLUSTRATIONS	
VIII. ENTER THE CADETS	71
IX. INTO THE AAF	77
SMILIN' JACK CARTOONS by Lt. Col Zack Mosley, CAP	
X. SEARCH AND RESCUE	82
XI. SMOKE-CHASERS	91
XII. MERCY MISSIONS	98
XIII. WOMEN IN THE SKY	104
XIV. LATER DAYS	110
XV. CAP LOOKS AHEAD	117
APPENDIX A. HONOR ROLL	120
APPENDIX B. WING COMMANDERS	123

FOREWORD

As predicted by the original author of this book, the Civil Air Patrol has continued to serve the nation as a great volunteer organization. The organization now approaches its 50th Anniversary, and at the end of 1987 stood at a strength of 72,969. True, its missions have been modified by our more complex society, but the spirit of those Flying Minute Men who went before us is still in evidence.

The Civil Air Patrol today pursues a three-part mission involving cadet training, aerospace education, and emergency services. Some 30,500 young people are participating in the vigorous and vital Cadet Program, flourishing as one of the greatest mental and physical training regimens in the country. Through its many activities in the field of Aerospace Education, the Patrol has become an acknowledged leader in that field. Its many publications and conferences contribute to the advancement of aviation as a science. Rooted in the tradition of the many hazardous missions of World War II is the Civil Air Patrol's Emergency Services Mission. Operating in 1987 with a fleet of 575 corporate-owned and 8,365 member-owned aircraft, it continued as the very backbone of the nation's Inland Search and Rescue Program. These aircraft, along with appropriate ground support, participated in 2,097 missions. They flew 8,544 sorties for a total of 17,787 hours, resulting in the saving of 108 lives.

The Civil Air Patrol is now a mature and viable organization. Steeped in the tradition of its wartime service, it stands as its motto states: "Semper Vigilans."

LESTER E. HOPPER
Colonel, CAP
National Historian
New Orleans 1988

FOREWORD TO THE 1948 EDITION

This is one of the great untold stories of the war—a story whose final chapter has not yet been written.

“Flying Minute Men” is the saga of the Civil Air Patrol, an American phenomenon launched one week before Pearl Harbor by private fliers who could see trouble ahead and were prepared for it when it came—much as were the “Minute Men” of the Revolutionary War.

From nothing, the CAP grew like magic into an army of more than 100,000 trained and disciplined civilians. A volunteer organization pledged to the nation's defense, it was composed of men too old for the Army, boys too young for it, and thousands of others who later saw action with every branch of service.

In its ranks were millionaires to shoe clerks, lawyers and mechanics, doctors and plumbers, professional women and housewives—all of them enthusiasts with something to contribute.

This was the army that flew more than 24 million miles over the Atlantic and Gulf in single-engined landplanes to help win the battle against German U-boats that were preying on coastal shipping early in the war; and it should be noted that, for one period—at the start of the war—this CAP was the only agency that was able to take any real action toward controlling the submarine menace. This civilian flying unit was the army that furnished the Regular Army and defense plants with an efficient aerial courier service; that towed targets for anti-aircraft batteries and tracked for searchlight crews; that flew sentry duty along the Mexican border, on watch for spies and saboteurs; that spotted forest fires, rushed medicines and supplies by air to flood disaster areas, and located lost plane after lost plane in mountainous and wooded terrain.

This was an army that lost 50 good fliers—among them, a man of 50 and a boy of 18—on official wartime missions, alone.

As the wartime commander of the Army Air Forces, I had reason to be grateful to the Civil Air Patrol on many occasions. To my mind, the Patrol's contribution in recruiting thousands of aviation cadets and aircrew members for the AAF was particularly outstanding.

When the war ended, there were many who anticipated that the CAP, its work apparently done, would melt into oblivion, like the other volunteer defense groups that mushroomed into being during the emergency period. But time has proved the Civil Air Patrol has a very definite role to play in the postwar aviation picture. An auxiliary of the AAF since 1943, it has succeeded in carving for itself a vital niche in the Air Forces family. Today its activities are closely linked with those of its parent organization, the Air National Guard, the Air Reserve and the Air ROTC.

The CAP now boasts a membership of approximately 100,000, including its teen-age cadets, and is active in all 48 states, and Hawaii. The pre-flight training of its members, the furthering of aviation subjects in the nation's high schools, the promotion of flying and gliding clubs, the carrying out of an extensive air-marking campaign in cooperation with the CAA—these are some of the projects currently sponsored by the Patrol, whose broad aim is to keep America strong in the air.

I have watched the Civil Air Patrol grow from a crisis-born idea into a national institution, and I am confident it will continue to carry on its truly American program for many years to come.

I am greatly pleased, at long last, to see the CAP's authentic story in print.

—H. H. ARNOLD, General
of the Army (Commanding
General of Army Air Forces
during World War II)

DEDICATION

This book is respectfully dedicated to Brigadier General Earle L. Johnson, the wartime leader of the Civil Air Patrol, who was killed in an air crash near Cleveland, Ohio, in February 1947, while furthering the peacetime program of CAP. He was promoted posthumously.

ACKNOWLEDGMENTS

This history of the Civil Air Patrol, which involved nearly a year of research, has been made possible only through the wholehearted cooperation of National CAP Headquarters, where files were opened and assistance was freely given.

Many individuals deserve credit for their part in helping to put this panoramic story between the covers of a book. Special mention belongs to the following:

To William W. Roberts, Jr., who shared in the writing.

To Zack Mosley, creator of "Smilin Jack," copyrighted by News Syndicate Co., Inc., for the cartoon strips which help illustrate the book.

To Roosevelt Der Tatevasion, Sid L. Schwartz, Edwin Wilber, Herbert Rosen, Murray Green, and Margaret Vrabel, present and former members of the Directorate of Public Relations, Department of the Air Force, who assisted immeasurably in various and necessary ways.

And to scores of present and former members of CAP in all sections of the country who contributed information and pictures contained in "Flying Minute Men." Prominent among them are Gill Robb Wilson, Jack Vilas, Kendall K. Hoyt, Bill Madsen, Art Keil, Elbert Isom, J. L. Gilbertson, Harry W. Coffey, Jack R. Moore, Jr., Ralph Earle, George Whitney, Wynant Farr, D. Harold Byrd, Larry Fisher, the late Frank Dawson, Hugh Sharp, Jr., Wright ("Ike") Vermilya, Julius Gresham, Lloyd Fales, Verne Kemmerrer, Charles B. Rich, Sam Buck, E. R. Vadeboncoeur, George E. Haddaway, William A. Pruitt, and Wallace Newcomb.

R. E. N.

DEATH ON THE DOORSTEP

There was a time early in 1942 when Nazi submarines were bagging two or three vessels a day along the East Coast and in the Gulf of Mexico. The entire 1,200-mile sea frontier from Halifax to the Florida Keys was protected by some antiquated subchasers, five old Eagle boats, three ocean-going yachts, fewer than a dozen Coast Guard ships, four blimps, and a handful of airplanes. During those first desperate months after the United States was plunged into war, the Navy was spread far too thin to keep the Nazi sharks at bay—and the tankerman who sailed past Cape Hatteras alive counted himself lucky.

Twelve vessels went down in January, 42 took the plunge in March, and by May the toll of shipping was so terrible that no figures on losses were released to the public. For several humiliating weeks, all coastal vessels were ordered to put up in harbors until convoys could be organized.

Danger lurked along the waterfront. Mysterious blinkers contacted offshore craft at night; enemy agents rubbed shoulders with sailors in bars and restaurants, alert for news of ship movements; short-wave sets concealed in attics and basements relayed information from towns and cities along the coast. Eight Nazi saboteurs, schooled in the arts of death and destruction, were actually intercepted by alert Coast Guard sentries. Four Nazis landed on a Florida beach, and the other four near the eastern tip of Long Island after disembarking from submarines in rubber boats.

The 245-foot transatlantic monsters, spawned in the pens at Laurent, Bremen, and Wilhelmshaven, became brazenly impudent. They sank a ship in the mouth of the Connecticut River, potted two more in the Saint Lawrence, and crept up into the Lower Mississippi to threaten shipping plying out of New Orleans. Before dim-outs were ordered along the coast, the U-boats turned the waters off brightly lighted resort cities into shooting galleries, ramming torpedoes into sharply silhouetted tankers and merchantmen within sight of the boardwalk crowds. Sometimes, in order to conserve their "tin fish," subs blasted shipping with their two formidable four-inch guns, which more than matched the armament carried by most U.S. patrol boats. On occasion, U-boats crews even hung out their wash and took sunbaths on deck when their crafts surfaced to charge batteries.

Wild stories—reminiscent of some that went the rounds during the First World War—told how theater tickets from Miami showhouses, milk bottles with the stamp of Miami dairy, and bread-wrappings from a Miami bakery had been found aboard a submarine captured off Florida. These tales were later discredited, but the fact that they were accepted by many persons as the truth is evidence of the jittery state of the nation during those hectic, embattled days.

Gasoline and oil shortages were growing in the Eastern states as tanker after tanker was torpedoed and turned into a gigantic funeral pyre after leaving Texas refineries bound for Northern ports. Tanks and guns and ammunition intended for Russia and England were often diverted to the bottom of the ocean a few hours after leaving American harbors. Submarines were operating close to land, frequently attacking their victims from the inshore side.

Civilians along the coast wanted to help, but there was little they could do except to stare

in horror at charred corpses washed up by the tide on oil-drenched, wreckage-littered beaches. Off Miami, Florida, and off Provincetown, Massachusetts, they did race to the rescue in motorboats to pull sputtering, half-dead seamen and soldiers out of the ocean—the latter being survivors of a troopship torpedoed near the fashionable art colony. But there seemed to be little that either the military or civilians could do to stem the tide of destruction. It was like trying to battle a giant with a fly-swatter.

There were many in this country who were unprepared for the shock of Pearl Harbor, who didn't believe this country ran any real danger of becoming involved in Europe or in the Pacific. But most of America's civilian airmen were awake. They reasoned that in a national emergency their special training and their planes could be utilized to supplement the military. At the same time, they realized that they would have to work as an organized force if they were to function effectively as an aid to the Army and Navy.

Long before the Civil Air Patrol became an official body on the first day of December in 1941, fliers were being organized for potential military operations, and planes and technicians were being lined up by local units. The training program was geared from the first to whip the squadrons into shape for the emergency missions they were later to run off under military control.

As more flights and squadrons mushroomed into being in towns and cities all around the country, and as the situation along the coast grew worse, the personnel of CAP became increasingly insistent that they be given the job of patrolling the sub-infested offshore waters.

By February 1942, the situation had reached a critical stage. It was then that William D. Mason, late a director of the Petroleum Administration for War, on leave from the Sun Oil Company to supervise security for oil shipments, pushed the plan to employ men and planes of the newly formed Civil Air Patrol as submarine spotters. Himself a member of the nationwide organization of civilian airmen which had gone into operation under the Office of Civilian Defense of December 1, 1941, to give wings to the nation's home defense needs, Mason was convinced that private fliers in small planes could play a big part in checking the terrible toll of shipping being taken by the German wolfpacks. He discussed the project with Major General John F. Curry, national commander of the Patrol, early in February. But money for bases, along with a directive from the Air Force's General Henry H. Arnold, was needed before the Minute Men of the Air could be authorized to fly over the shipping lanes.

J. Howard Pew, president of Sun Oil Company, advanced \$10,000 as an initial requirement for the establishment of coastal patrol bases. This amount later was increased by some \$8,000 by Sun, and other oil companies' contributions swelled the amount to about \$45,000. When the Air Force later noted the fine work of the CAP on coastal patrol missions, it assumed the financial burden.

The first reaction of most Army and Navy brass, however, was strictly negative. It was troublesome enough to have civilians flying their little planes over inland areas, they thought, and it would be twice as bad to have them clutter up the already confused situation along the coast. Besides, they asked, what good were country-club pilots in single-engine land-planes when it came to policing the ocean highways? These missions would have to be flown 40 or 50 miles offshore and were rugged enough to give a real workout to the service aircraft and pilots of the I Bomber Command.

In the meantime, more ships were being sunk, and the Army and Navy still lacked strength to offer much more than token protection. The oil industry and spokesmen for the maritime unions demanded that something be done to give crews and cargoes an even break. Civilian planes and pilots might be able to help. Why not give them a chance?

"We may not sink any submarines," said Gill Robb Wilson, the New York *Herald Tribune's* aviation writer, who was then CAP's national executive officer, "but we might be able to frighten them into staying below the surface. That would reduce their speed and the

accuracy of their fire would suffer, giving our shipping a fighting chance. They wouldn't be knocked over like sitting ducks as they are now."

It was finally agreed that experimental bases were to be set up immediately at Atlantic City, New Jersey, and Rehoboth, Delaware. A third was to be activated at West Palm Beach, Florida, shortly after the two Northern stations commenced operations. A grant of \$18,000 was allowed for the maintenance of the bases during a 90-day trial period. The "hot spots" they covered were widely known as ship graveyards, where sinkings were almost daily occurrences.

To Atlantic City and to Rehoboth in late February and early March of 1942 came some of the best-qualified civilian pilots in the country, many of them bringing along their own planes, two-way radios, and spare parts. Most of the early arrivals were Easterners, but the ones who came later to bases up and down the coast were from 45 different states. They were picked men—pilots with hundreds of hours of flying time, much of it on cross-country flights, who had been given dry-land training for the incredible job they were about to tackle. Among them were barnstormers, lawyers, bus-drivers, manufacturers, mechanics, doctors, and shoe clerks. Wealthy Manhattan brokers like Tom Eastman shared the assignment with men like the late Ben Berger, a former Denver bakery-truck driver who died in a crash at Atlantic City on Easter Sunday, 1943. Dozens of the active-duty volunteers junked their businesses and jobs for months or years. Some brought their wives along. Many of the women worked as typists, communications specialists, and plotting-board operators—jobs they shared with local volunteers. A number of girls at the bases were pilots in their own right, but coastal patrol flying duty was barred to them because of the risks connected with the overwater missions.

At the outset, volunteers were given the option of signing up for 30, 60, or 90 days of continuous service—or longer. The 30-day minimum was soon upped to 90 days, however, since a man who was to be around for only a month or two would still be a rookie when he left. The majority of the pilots, observers, and mechanics who reported for duty at Rehoboth or Atlantic City signed up for six months, a year, or for the duration.

Calls went out to the CAP state organizations (called wings) for airworthy planes of 90 horsepower or more—planes ready to fly into action at once. Such ships as Fairchilds, Beechcrafts, Stinsons, Wacos, and heavier craft—with or without pilots—were requested. Hourly rates covering out-of-pocket charges and depreciation were paid the owners.

To make sure that coastal patrol fliers would be treated as prisoners of war and not shot as guerrillas if captured by Nazi submarine crews, CAP officials worked through the War and State Departments to make the functions of the coastal patrol known to foreign governments. The "US" on the organizational emblem was further guaranty that the men who flew over the ocean in civilian ships were under official Army orders.

The week that Gill Robb Wilson's Atlantic City contingent set up shop at the Municipal Airport a near-hurricane threatened to demolish CAP aircraft staked down on the field. For two nightmarish, sleepless nights, every man on the base clung to wings and struts and tail surfaces to prevent the howling wind from blowing the ships over and wrecking them. Pilots and observers joined guards and mechanics in the battle against the elements, sometimes throwing themselves bodily across fuselages when the blow was at its height. Whenever they could be spared momentarily, men ran into a rickety hangar and slapped each other around in order to restore circulation—then they'd go back for another bout with the storm and soon would be stiff with cold and drenched to the skin by the sleety rain.

The idea of flying in land planes over the ocean at a few hundred feet and as far as 100 miles out of sight of shore was something that most coastal patrol volunteers would have considered sheer suicide a few months before. Some of the pilots were professional aviators, but with the exception of the late Major Holger Hoiriis, Delaware Wing Commander who

headed the Rehoboth base, and a few others, none had any overwater experience. Hoiriis, who answered to the nickname of "Hold-Your-Horses," was the first to fly a passenger across the Atlantic. The payload was Otto Hillig of Liberty, New York, and the flight was from Harbor Grace, Newfoundland, to Copenhagen, Denmark, in June 1931. The tall Delaware aviator, who later distinguished himself by flying the first airmail pickup route, was knighted by King Christian X for his transatlantic hop.

Major Hugh R. Sharp, Jr., operations officer and subsequently Rehoboth's base commander following Hoiriis' death from a chronic ailment that August, led the first flight made over the ocean by any coastal patrol unit on March 5, 1942—on a dark, hazy afternoon.

"We had never flown across anything wider than the Delaware River up to this time and we were scared stiff," Sharp commented later.

During the initial patrol, which lasted an hour and ten minutes, the pioneer wave-scrappers saw nothing except a lot of water, a few plodding freighters, and some oil patches. The latter had significance of a sort; they were probably from tankers previously sunk in the area.

Not nearly so peaceful was the maiden flight out of Atlantic City a few days later. Major Wynant C. Farr, portly New York cardboard manufacturer who took over as Patrol Force One's commander shortly after Gill Robb Wilson opened up the base, lifted his yellow Fairchild off the runway of the Municipal Airport. Beside him was cigar-chewing Al Muthig, who used to fly with Farr around Walden, New York. There were no life-vests aboard—just an inflated inner-tube which lay on the cabin floor. They had been told to "get on your radio and yell bloody-murder for help" in the event they had to come down in the water. As they circled the field, then headed out over Hamid's Million Dollar Pier, Farr and Muthig suddenly realized that this would be their first ride over the ocean. A few minutes later they were far from shore, heading out over the vast Atlantic with only a few fishing boats below to keep them company.

Fifteen minutes out of Atlantic City things started to happen. They spotted the floundering hulk of a torpedoed tanker, which by some miracle had not caught fire and was still afloat. At a safe distance from the stricken vessel, Farr and Muthig could make out the bobbing heads of the surviving crewmen, who were taking no chances of being trapped by a delayed explosion. Near the bow of the ship, where the torpedo had ripped into her, floated the limp bodies of several sailors who had been caught below decks when the torpedo struck.

Muthig radioed the base for help and Farr circled the tanker, wagging his wings. The men in the water understood that aid was on the way and waved weakly. In less than an hour, a Coast Guard cutter came speeding out over the ocean and gathered in the survivors.

The yellow plane buzzed northward again, its course set for New York Harbor. By the time it returned to Atlantic City nearly five hours after take-off with its fuel gauge edging toward the empty mark, Farr and Muthig had also sighted seven floating bodies, an empty lifeboat, and an apple crate. There had been no submarines—but evidence of their presence had been plentiful.

The first sub spotted by the CAP was surprised by two planes from Rehoboth as it was about to fire a torpedo into the side of a tanker near the shallow-water shoals off Cape May, New Jersey, on March 10. Observers Howard Carter and Eddie Edwards were watching two vessels steam past Five Fathom Bank Buoy when they sighted what at first appeared to be a tanker foundering, its decks awash. At closer quarters they could see that it was a submarine, obviously lying in wait for the nearest tanker. As the two unarmed Fairchilds swooped on the U-boat, its commander gave the order to crash-dive. Lieutenants Ivan Culbertson and Benny Benedict, the pilots, circled the area for an hour, but there was no further sign of the sub.

At the beginning of coastal patrol, scouting missions received top priority. Within a few

weeks, however, convoy duty became the main job. Planes from Rehoboth flew rectangular patterns over the slow-moving freighters and tankers from Winter Quarter Light north to Delaware Bay, where planes from Atlantic City took over convoy chores, shepherding the ships into New York Harbor. When convoying, the practice was to fly counterclockwise in a regular pattern around the ships, being careful not to leave them uncovered from the rear.

The dawn patrol ordinarily took off from Atlantic City and Rehoboth a half-hour before sunrise, following a briefing session conducted at each base by an intelligence officer. The dusk patrol, or the last escort mission, whichever the case might be, usually returned to base half an hour after sunset. When there were no convoys to ride herd on, planes were sent out on scouting missions at two-hour intervals.

From the first, the dawn-to-dusk patrol planes, flying in pairs for mutual protection, spotted subs for the Army and Navy. Sometimes, as in the first encounter near Cape May, they forced U-boats to crash-dive just as they were about to attack a lumbering oiler or merchantman. And from the very beginning, the CAP saved lives by radioing the position of ships in distress and the location of survivors.

In the early days—and up to October 15, 1942, when the Antisubmarine Command was launched under the operational control of the Eastern and Gulf Sea Frontiers—the First Air Force, with headquarters at Mitchel Field, Long Island, was charged with protecting the East Coast from Maine to Virginia.

At the time of Pearl Harbor, the First Air Force had a strength of 337 planes, including both fighters and bombers, and 57 of these were out of commission. At the time it had only two bases along the coast, one at Langley Field, Virginia, and the other at Mitchel. It was from these and from some later-established fields that CAP planes called for assistance via the Cape May Naval Air Station control headquarters when they spotted submarines. Army bombers were credited with sinking several undersea marauders flushed by the CAP airmen.

The men who policed the sealanes on coastal patrol realized that any flight might be their last one. But they didn't carry parachutes because it isn't healthy to bail out at 500 feet or less, which was the usual altitude flown. If an engine failed, a crew's best chance was to try to pancake their ship onto the surface of the water, then to force open the doors and pull themselves out of their flooding cabin as quickly as they could. Odds were good that the sister ship circling above would be able to summon aid from a Coast Guard cutter or a passing freighter. Hitting the drink in the summer wasn't any fun, but it was much worse in the wintertime because a half-hour's dunking in the frigid water was almost sure death. The worst time to come down was during the dusk patrol, with darkness about to pull a black shroud across the ocean's face—and across a man's chances for coming home alive. It was a rugged deal that the "Sunday pilots" of CAP had taken on.

The sun-drenched beaches and the after-dark amusements of Atlantic City and Rehoboth were not permitted to interfere with the task at hand. Between flights and even during the evenings, coastal patrol personnel attended classes in navigation, meteorology, blinker code, and other subjects that fitted in with the type of operations being carried out at the time. At Atlantic City, where Major Farr insisted on stiff discipline and where nearly every spare minute was occupied by classes, evening sessions held in the ballroom of the Cosmopolitan Hotel were attended by *all* hands. Close-order drill was an important part of the curriculum, too, since many of the men reporting for duty were paunchy gentlemen in their forties and fifties who were a long way from resembling soldiers. At Major Farr's base, a drill sergeant who came to be known as "the man with the whistle" was loaned to CAP by the Army's basic training center. His was a formidable challenge—but he somehow succeeded in converting a sizable group of assorted individualists into a smart-stepping outfit that proved on several occasions that it could hold its own with any military outfit on the parade ground.

No one got rich on coastal patrol. Pilots received no salary but merely a per diem of \$8 to

take care of uniforms, food, lodging, and all incidentals. Observers and mechanics rated \$7, and other ground personnel, including guards and office help, drew \$5 or \$6. The per diem wasn't the lavish gift that some outsiders seemed to think. Captain Robert E. Thomas, a Baltimore broker with a flair for figures, kept careful check of his income and expenses for a six-month tour of duty, during which he flew 40,000 miles over the water. Adding up his resources, he found that he had exactly \$56 left after all his expenses were paid. In other words, he had managed to clear a little less than \$10 a month. He was lucky; many of the coastal patrol personnel went in the hole.

To make financial matters even more pressing, per-diem checks were frequently as much as two months late. As a result, the men went up to their necks in debt for room rent and meals. Some public-spirited residents of the two resort communities knew what was going on, although they never said anything about the hush-hush operations being run off under their noses, and either donated meals and other necessities outright or helped by extending credit. But there were others, quite a few of them, who came to think of the patrol personnel as deadbeats. Oil companies, knowing the grim necessity for keeping the bases functioning, sent in gas and oil. But some of the local distributors, overdue vouchers spread out in front of them, had harsh words for CAP.

There was one precarious period during the early weeks when a telegram from the Atlantic City base arrived at National CAP Headquarters in Washington with the announcement: **CAN'T PAY OUR BILLS. BEING EVICTED FROM OUR BOARDING HOUSES.**

Although \$18,000 had been earmarked under the Office of Civilian Defense to maintain the experimental bases, a new disbursing procedure had to be set up, and Major Earle L. Johnson, national CAP commander, hurried to the Treasury to try to speed the process of pushing through the tardy per-diem checks.

In Atlantic City, meanwhile, Major Farr went to see the district manager of the Sun Oil Company. Within ten minutes, a messenger was making the rounds of the company's service stations in the area, and tills were being emptied of greenbacks and silver. The courier returned with more than \$1,000, enabling Farr to pay off the base's most urgent debts.

A few days after Farr's eloquent wire to Washington, the Treasury coughed up the CAP per-diem checks and the good news was sent ahead to Atlantic City that Colonel Harry H. Blee, the Air Force officer in charge of national operations and training, was on his way in an Army plane with a double handful of the precious paper. When the colonel stepped out of his ship, Major Farr and his men accorded him a warm but fickle welcome. As soon as Blee handed the fat bundle to Farr, the Atlantic City commander bustled into the administration building with every man on the base stampeding after him. A day or so later, delivery was also made to Rehoboth. For a time, at least, the coastal patrol bases were out of hock.

But money continued to be scarce, and it looked for a time as if the boys on the coast might have to give up. Then eight of the major oil companies, informed by their ship captains of the type of work CAP was doing, came to the rescue with a contribution of \$40,000, known as the "Tanker Protection Fund." That donation, plus thousands of dollars from the pockets of some of the wealthier coastal patrol personnel, helped keep the bases going when the battle for existence was on.

CAP airmen flew in all kinds of weather, heading out over the choppy Atlantic on some dismal days when weather conditions were so far below the prescribed minimum that Army and Navy patrol planes were held on the ground. Rehoboth, Atlantic City, and a number of other bases logged well over a million miles of overwater flying apiece in less than a year and a half. At Rehoboth, which had more than its share of rocky weather, only two complete days of patrol duty were missed during that period.

"If we could see half the runway and if the ceiling wasn't so low that we stuck our heads into it on the way to our ships—we flew," is the way one pilot expressed it.

Two of the first coastal patrol fliers to qualify for the Duck Club, CAP's equivalent to the famed Caterpillar Club, were Lieutenants Ralph Binder and Jim Knox of the Atlantic City base.

They came down in the ocean off Cape May a few weeks after Patrol Force I got going. Ann Ackerman, the pretty brunette in the radio tower, wasted no time when she heard Observer Binder yell into his radio: "We're taking a ducking!"

She knew exactly where the plane was, thanks to a position report—or "Prep Roger"—received only a few minutes before. So she notified the Coast Guard, and a patrol boat was on its way almost as soon as the CAP ship plopped into the ocean.

It was lucky for the two fliers that help came in a hurry. Binder had been knocked unconscious when the plane hit the water and big Jim Knox, a rugged chap who weighed 250 pounds and stood six-feet-three, suffered a broken hip. Somehow, in spite of shock and intense pain, "Shorty" Knox dragged his observer out of the flooded cabin just before the plane sank. Binder had removed his life-vest shortly before the crash, so Knox had to hang on to his unconscious companion and try to hold his sagging head above water in the turbulent seas. Several times Knox felt Binder start to slip out of his grasp, then he'd grab a fresh hold.

The ten minutes it took for the "YP" boat to reach the scene seemed like ten hours to the weakening CAP Lieutenant. When he saw the 83-foot cutter rolling and pitching in the towering seas, he shouted with all his remaining strength to attract the attention of the crewmen on deck. They saw the two bobbing heads in the water and maneuvered to take the wave-battered survivors aboard.

The Coast Guard boat couldn't come too near. There was danger that Knox and Binder would be dashed against the hull by waves. On the cutter, Chief Boatswain's Mate A. E. Ackerley had his mates tie a line around his waist and secure it to a cleat on the deck. Then he jumped over the side and swam toward the two men. He had to fight for every inch of forward movement and was sometimes swept backward despite his dogged struggle. Ackerley was nearly spent when he reached Knox and Binder, but he managed to slip his line around their waists. All three were towed in, half drowned, and hauled aboard the cutter.

Ackerley won the Coast Guard lifesaving medal for the rescue, and both Knox and Binder carried on with Patrol Force I when they had recovered from their injuries. But it was doubtful that the two CAP lieutenants ever wore the red drake on the blue sphere that their ducking had earned for them. They had come too close to death to care about being reminded of the incident.

The Atlantic City base took shape quickly. Starting with little more than a fair landing field, with gravel runways, and two hangars—one of which was progressively falling apart—Base I blossomed out with a roomy operations building, a superbly equipped control tower and communications office, intelligence and code rooms, an infirmary, and a fine cafeteria. The infirmary, which was credited with saving the lives of four cracked-up Army fliers and several CAP members who had been fished out of the Atlantic in mid-winter, was the outright gift of CAP's old friend, Bill Mason. Flight surgeon was Dr. Harold Davidson, a local doctor, who gave all the necessary inoculations, took care of the sick, and handled the other medical duties—free of charge. The cafeteria, which served three hot meals a day, was run by Mrs. Dorothy Higbe. The Atlantic City woman, known to everyone as Dot, transferred from the Red Cross motor corps to start a base canteen a few days after the coastal patrol moved in. Under her expert direction, the canteen grew into a full-fledged cafeteria that was scarcely surpassed by the best resort hotels.

The radio setup at Atlantic City was second to none. One base transmitter was obtained through the help of RCA's Jim Riddle, who diverted it from a shipment intended for China. A second was donated by Major Larry Dunn, New York wing communications officer and

later technical adviser for CAP national headquarters. He deserted his Long Island dental practice to fly regular patrols and to help develop communications facilities. In all, 38 four-frequency transmitters were built and installed in Base I's planes over the months. An added feature was a communications sub-station maintained at Sea Girt, New Jersey, by Lieutenant Bill Hildreth and his wife. The Hildreths had been graduated from the Signal Corps school at Fort Monmouth and it was their responsibility to take radio "fixes" if a plane went down. They also acted as prompters when radio messages were garbled or misunderstood.

The Rehoboth base, located three miles northwest of Rehoboth near the village of Lewes, had a small sod field without boundary lights or markers as a foundation to build on. That was just about all—except for three ancient sheet-metal hangars with dirt floors and doors that wouldn't close. Here, too, a miraculous transition took place. A room in one of the hangars became communications headquarters and a lean-to attached to a second hangar was converted into an operations office. Later a canteen and a restaurant were constructed. The lumber was donated for this, but all hands pitched in to do the building. Captain Tom O'Dea, a Dover auto salesman in civil life, was one of the key figures in the Rehoboth expansion. He was a master at locating scrap lumber and at installing heating and plumbing.

At Rehoboth, Major Holger Hoiriis and his successor, Major Hugh Sharp, standardized with Fairchild 24s, thereby simplifying maintenance. Since Rehoboth's mechanics pulled complete overhauls, the single model made the task easier. In the summer of 1942, a seaplane base was set up two miles from the main field, at the head of Rehoboth Bay. Fairchilds equipped with pontoons usually flew as sister ships to landcraft. In addition, an antiquated Sikorsky 39 was kept for rescue work and used occasionally for patrols.

"We fly by the grace of God and Smitty," the Rehoboth pilots were accustomed to say.

Captain Everett M. Smith was the full name of a small, dark-haired man in his early fifties whose mechanical wizardry became legendary. A veteran of the First World War, he had worked with aircraft during most of his adult life, and had once designed and built a very flyable airplane. He had assembled P-40s for General Chennault's Flying Tigers in China before the United States was formally at war with Japan, later returning to a small field near Wilmington as base mechanic. When Hugh Sharp invited him to come along to Rehoboth, he accepted on the spot.

Smitty was usually tinkering around in his workshop an hour before dawn, and he often could be found among his benches and homemade machines and tools at midnight. He trained young local boys and a few former automobile mechanics to help him do tricks with airplane motors. When it became impossible to have major overhauls made at inland stations, Smitty manufactured the specialized equipment he needed with the help of a second-hand lathe and a few hand-tools and did the job at Rehoboth.

Captain Smith's safety devices were widely copied around the coastal circuit. One of his best-known inventions was a door that could be tossed aside in a matter of seconds when a pilot was forced to crash-land in the ocean. Since one of the greatest hazards to downed pilots and observers was the danger of being trapped in the plane's cabin by the pressure of the water, the removable doors simplified the process of leaving a wreck in a hurry.

To make a ditched plane stay afloat, Smitty manufactured special tin cans that would fit into the rear of a Fairchild's fuselage. There were five of them, all a different shape. The cans not only prevented a plane from sinking like a rock, as planes had a bad habit of doing, but also converted a wreck into a position marker for rescue operations.

"You see," one of the Rehoboth pilots explained, "visibility is one of the vital factors. A rubber boat drifts at two or three miles an hour. If you lose it in the wintertime, the men can't possibly last the night. But this plane with tanks has its tail painted a bright yellow. It floats obliquely with its engine in the water and its tail sticking out, a beacon twelve to fif-

teen feet high and visible as far as ten miles away on a calm day.”

Smitty’s “cans” proved their worth soon after they were installed. On several occasions, planes were towed ashore and salvaged after going down.

Ed Smith’s Atlantic City counterpart was Lieutenant Rudie Chalow, a garageman from Vineland, New Jersey. Soon after his arrival, the tall, thin-faced engineering officer transferred practically his entire repair shop from Vineland to the base. Chalow’s equipment was housed in a little shed built inside ramshackle Hangar Three. Some of the patching and improvising that took place under the sieve-like roof of the old hangar was decidedly unorthodox, but Rudie kept the patrols in the air.

The third experimental base was opened on March 30, 1942, at Morrison Field, Florida, a few miles from West Palm Beach. But Army traffic was too heavy, so Major Ike Vermilya—an old-time airman who was the prototype for Zack Mosley’s “Long Distance Ike” in his syndicated “Smilin’ Jack” comic strip—moved his lads to a small municipal port just outside nearby Lantana.

Mosley, a captain in CAP, was in Major Ike’s crew and flew numerous missions over the water. Along with Captain Art Keil, the unit’s intelligence officer, Mosley once escorted newspaper columnist Henry McLeMore from Daytona Beach to Lantana for a visit which furnished material for several columns regarding “the old man’s branch of the air service.” Here are some excerpts:

“The two CAP captains brought me down in a ship that looked as if it were on lend-lease from the Smithsonian Institution. I would not be at all surprised, in fact, if its motor wasn’t stolen from Eli Whitney’s cotton gin. Yet this crate, this fugitive from a salvage drive, is the pride of the coastal patrol base from which they operate.

“We took off from a military base and the kids there couldn’t help but laugh as we taxied to the line between rows of modern dive-bombers and pursuit planes. The air-speed indicator showed 80 miles per hour as we were airborne and 210 when we cleared a pine thicket so closely that I could have robbed a sparrow’s nest had I chosen to. Captain Mosley was at the controls and Captain Keil at the repairs. Keil tied some mysterious strings together, put on some earphones that didn’t work, and manually held a ventilator closed. It was the only plane I was ever in that underwent repairs while taxiing to take off.

“We came down as the crow flies—but we didn’t beat any crows who were following the same flight plan. . . . When we landed, a group of CAP’s were taking off on a routine flight. Out over the sea they disappeared, flying planes that made ours look like a luxury liner in comparison. Any time you want to sing a song to some unsung heroes, lift your voices to those middle-aged men, all volunteers, who are doing a hazardous job with equipment that would make Pratt and Whitney have goose-flesh that Douglas could see all the way from California.”

The deep water a few hundred yards off Lantana Beach was a main highway for coastwise shipping. It was also a playground for submarines. In the space of a very few miles, more than a dozen sinkings had taken place. The U-boats struck their biggest blow early in May, accounting for five Allied ships in less than 48 hours.

Three patrol planes searching for survivors from the S.S. *Eclipse*, the first victim, spotted a submarine about to attack another merchantman. They dived on the periscope and drove it under. That night the Nazi sharks went to work in earnest and blasted four more vessels in Major Ike’s front yard.

The dawn patrol on the morning of the 5th sighted the S.S. *DeLisle* on the beach, 25 miles to the north, with a gaping hole in her side. Farther south, other patrols located three more victims of the night’s orgy of death. The S.S. *Amazon*, a Dutch freighter, was down within sight of shore, the tip of her mast protruding from the water like a gravestone marker. Nearby, the American tanker S.S. *Java Arrow* was still afloat but listing, one side bashed in by a

torpedo. And five miles to the south the U. S. tanker S.S. *Halsey*, afire from stem to stern, billowed great clouds of black smoke. She had burst into flame several hours after being attacked, just as her crew was approaching in lifeboats to go back aboard.

One of the killers, spotted off Cape Canaveral by the Melbourne Patrol just at sunrise, paid for its share in the previous evening's depredations. Pilot Carl Dahlberg and Observer Earl Adams sighted the U-boat with its conning tower awash, lying in the path of an approaching tanker. The German lost interest in the hunt when the Stinson got within a mile and a half of it, crash-diving for cover. Dahlberg and Adams circled low over the area where the sub was last seen. Twenty minutes later, they picked up its slick, on a line between the diving point and the tanker. A Navy plane, answering the CAP call for aid, took up where the Stinson left off. It unloaded two depth charges which were later reported by the grapevine to have found their mark.

The rash of sinkings was only a few hours old when an incident occurred that almost broke the hearts of the two Lantana fliers concerned and had much to do with bringing about the arming of coastal patrol planes.

Pilot Tom Manning and Observer "Doc" Rinker were cruising along in their Stinson when they spotted a submarine on the surface in the vicinity of Cape Canaveral, near the mouth of the Banana River. In its haste to get away, the U-boat rammed its nose into a mud-bank and stuck there, its propellers churning futilely. The CAP plane circled overhead for 42 agonizing minutes while Rinker and Manning watched the mired monster squirm in the sand like an ugly worm. Rinker was on the radio every minute of that time, calling for bombers, destroyers, subchasers—anything! But before help arrived, the sub worked itself loose and disappeared in deep water. Weak with excitement and disappointment, Manning and Rinker flew home to Lantana, moaning and cursing about "the big one that got away."

Major "Ike" called CAP headquarters in Washington and scorched the wires with his report: "That's one we could have chalked up for a sure kill if we'd had bombs!" he shouted. "You see that we get 'em, and pronto, so we don't get caught with our pants down like that again."

General Arnold, learning of the incident at Cape Canaveral and of similar experiences by other CAP fliers along the coast, soon afterward directed the arming of all patrol planes. The Stinsons and Fairchilds and other aircraft were fitted with bomb-racks which held demolition bombs and depth charges. Light planes carried two 100-pounds "demos," and heavier ones like the Gull-Wings, Reliants, and Widgeons hoisted 325-pound depth charges. For the most part, standard bomb-racks were used, while releases varied according to which ordnance depot armed the ships. A bombsight rigged from 20 cents' worth of hairpins, glass, tin cans, and miscellaneous scrap by an anonymous Army technician at Morrison Field was improvised for CAP's use and turned out to be surprisingly accurate up to an altitude of 3,000 feet—which was more than three times the height at which the CAP dropped its bombs.

First base to be armed was the Atlantic City base, its racks being installed at Mitchel Field. It was also the first base to draw blood.

Captain Johnny Haggin, vice president of an aircraft-parts concern, and his C.O., Major Farr, were on patrol in a Grumman Widgeon about 24 miles off Absecon, New Jersey, to investigate a "contact report" radioed to the base by another CAP plane. It was eleven o'clock on a sunny July morning and they were skimming along at 300 feet when Farr, the observer, detected globs of oil on the gray-green surface.

The Widgeon circled, then settled down to track the submarine which, though below periscope depth, was easy to follow because of the oily trail it left in its wake. It was loafing along at only about two knots an hour, Farr and Haggin estimated, and was moving in a straight line, parallel to shore.

The sub-hunters, with two 325-pound depth charges poised beneath the wings of their amphibian, were tempted to move in for the kill. A yank on the cable release would send an "ash-can" crashing down on the oblivious killer. But if the first depth charge missed, they reasoned, the sub might dive out of range before a second could be dropped.

"We'd better wait until we can get a better crack at her," Farr decided. Haggin nodded, nursing the Widgeon at reduced speed, circling and zigzagging, intent on stalking the German.

From 11 A.M. until 3:30 P.M., the Widgeon tracked the slow-moving monster. Now the plane's gas supply was running low. They couldn't wait any longer.

The sub obliged by coming closer to the surface. It was still below periscope depth, but Farr and Haggin could faintly make out the long, cigar-shaped outlines of their quarry through the gentle, covering swells.

Now was the time! Haggin pushed the controls forward and the Widgeon pounced on the sub like a huge hawk. At less than 100 feet, Johnny leveled off and pulled the release cord. Looking back, Farr saw the can of TNT tumble onto the target, striking only a few feet off the submarine's bow. The concussion reached out and shook the amphibian as the exploding depth charge erupted. In the midst of the geyser of oil and water, Farr thought he saw the nose of the U-boat appear for a flashing moment. As the Widgeon came around again for its second run, a widening oil slick marked the target. Another blast tore open the ocean and Haggin again poured on the coal and pulled out of danger. Fragments of wood, later identified as planking from a submarine's gun deck, floated in the oily mess.

Only ten days after this successful sub-hunt, two Rehoboth fliers performed a heroic rescue at sea that won the Air Medal for them, the presentation being made at the White House some months later by the late President Franklin D. Roosevelt.

Major Hugh Sharp and Lieutenant Eddie Edwards were in the operations room when a radio distress call announced that Lieutenants Henry Cross and Charles Shelfus, flying buddies from Columbus, Ohio, had crashed in the ocean 20 miles north of Winter Quarter Light. The message was flashed from the sister ship, crewed by Lieutenants Carl Verdin and Shelley Edmondson, who were circling the area to mark position. Sharp and Edwards hurried out to the venerable 13-year-old Sikorsky amphibian that always stood by for emergencies. They were on their way.

Waves whipped up by a strong northeast wind were bigger than Sharp had estimated and very nearly wrecked the big amphibian when he set her down in the water not far from where Lieutenant Cross floated. In the landing, the port wing float was smashed, causing the plane to list heavily to the left. A ten-foot swell had hidden the one surviving flier, and Edwards clambered out on the hull to look for him and get in position to make the rescue. He succeeded in spotting Cross and tossed him a rope, scoring a bull's-eye. It was then that the Sikorsky's two-man crew realized that their work was cut out for them. The rope landed on Cross's chest, but he made no move to grab it.

"Looks like he's paralyzed—probably his back!" Edwards shouted over his shoulder to Sharp.

The Rehoboth operations officer whistled grimly between his teeth. This wasn't going to be easy. He maneuvered the lopsided Sikorsky carefully in the heavy swells, finally succeeded in bringing it directly alongside the injured survivor. Soaking with salt-water spray and perspiration, Edwards reached out from a prone position and grasped Cross under the arms. Slowly, painfully, he lifted him out of the heaving ocean and eased him onto the hull. With Sharp's help, Edwards carried the paralyzed pilot into the cabin. His back had been broken in the crash.

Shelfus, the observer, had disappeared completely. Evidently he had gone down with the shattered plane. Leaving other CAP ships to continue the search, Sharp and Edwards con-

centrated on getting Cross to shore. The turbulent seas made it impossible to take off, so Sharp taxied toward the nearest land.

But the wrecked wing float was causing trouble. The Sikorsky was listing badly to the left and surface speed had to be cut way down. Then rugged little Eddie Edwards, who later flew for the Navy, crawled out on the right wing as far as the pontoon and clung there, his weight throwing the craft into balance again. Edwards stuck there, stubborn as a burr, until a Coast Guard boat at last towed the Sikorsky ashore at four the next morning. By that time, his fingers had to be pried loose from the wing. He had spent eleven hours on his precarious perch. Cross, the rescued flier, ultimately recovered from his injury and drew a non-flying assignment.

Three other Rehoboth fliers besides Shelfus never came back. All were lost during the cold, blustery winter of 1942-1943. Lieutenant Delmont B. Garret of Rosetree, Pennsylvania, and his observer, Lieutenant Paul D. Towne, from Peoria, didn't have a chance to pull out. They were reported to have hit the ocean off Winter Quarter Shoal going downwind at about 120 miles an hour and disappeared in their shattered Fairchild. Lieutenant Harold O. Swift of Wilmington—the only Delaware flier lost at Rehoboth—froze to death on a life-raft after the ship he was piloting came down near Fenwick Island in a heavy snow-storm while on a dusk patrol. He and his observer, Lieutenant Harvey P. Cannon of Utica, New York, were able to climb onto rubber boats and scarcely got their feet wet in the process. They were about to tie their rafts together when a huge swell separated them. Cannon was picked up by the Coast Guard just before dark, but "Swift" wasn't found until the following afternoon, too late to do him any good.

Atlantic City and Lantana contributed their share of members to the Duck Club, but these bases were luckier. Lieutenant Ben Berger, the former Denver bakery-truck driver, was the lone Patrol Force I fatality. He was killed on an Easter Sunday when the low-wing Bellanca he was flying fell into the inland waterway a few moments after take-off. Ben, who had financed his flying instruction by doing odd jobs around Denver's municipal airport, left behind crippled parents and an invalid sister. The Lantana base escaped without a serious accident.

Fewer and fewer submarines were invading the waters patrolled by planes from the three original bases. While they were a match for almost any surface vessel that could be thrown against them during the early months of the war, the Nazis were afraid of the tiny CAP aircraft that hovered over convoys and lone vessels like guardian angels. Even before the planes were armed, U-boat commanders learned that the two-way radios they carried were capable of calling subchasers and bombers to the attack. After some painful lessons, the marauders began to abandon their favorite hunting grounds and to shift their activities to areas not yet covered by the bases.

Rehoboth, Atlantic City, and Lantana were proving their worth beyond any doubt. Long before the 90-day experiment was over, plans were in the making to extend the Coastal Patrol's aerial umbrella all the way from Maine to Mexico.

CIVILIANS WITH WINGS

On New Year's Day, 1942, Mr. and Mrs. America awoke with their biggest hangover in history. Whether or not they had celebrated the night before, the result was the same. World War II was on and it would take more than sleep and a "bromo" to banish it.

Sure, water-cooler cliques would still hash over the weekend poker parties and the Rose Bowl game, baseball fans across the country would continue to debate Brooklyn's chances of repeating their 1941 pennant drive, and the ladies would persist in admiring each other's hats at luncheons and afternoon teas. But poker chips, gridiron post-mortems, the antics of the Dodgers, and the price of millinery had lost their peacetime significance. Just as all rivers must flow into the ocean, even the most casual conversation sooner or later became part of the universal topic, the War.

Against a backdrop of marching feet, the drone of bombers, and the thunder of America's war production, the people worried:

"When the draft board put me in 1-A, I decided. . . ."

"My husband was called to Washington. . . ."

"Lemme tell you, son, when I was in the Argonne. . . ."

"How will Sue and the baby manage without Joe. . . ."

"I heard that this thing will last. . . ."

With Pearl Harbor's carnage, war had come home to the American people. Men were being made ready for combat at training centers throughout the land, volunteers were thronging to recruiting stations as draft calls were being stepped up and up. And those who couldn't get into the fight were organizing to do their bit on the home front. America was in a race—against time and against the Axis.

The Civil Air Patrol was officially established as a volunteer civilian defense activity just one week before the Japs left their fiery calling cards. By that scant margin, this country's civil aviation won its chance to serve. If the organization had been delayed until *after* that fateful Sunday, it might never have emerged at all. In every belligerent country with the lone exception of Russia, civilian planes had been grounded for the duration. It almost happened here.

Numerous government officials and not a few military men in all branches of the service—from braid-heavy admirals to some of the Air Force's top brass—were afraid that spies and saboteurs might somehow worm their way into the Patrol and promote aerial sabotage by dropping bombs, setting up secret Nazi air bases in isolated Western wastelands, and contacting German U-boats lying off the East and Gulf Coasts. Others discounted these suspicions, but failed to see how "a disorganized gang of civilians" could fit into the war-time picture; they would confuse air-raid spotters, use up critical materials, entangle traffic controls, and add to the confusion of a country girding itself for war.

"I don't care what those country-club pilots say they can do. I don't want their toy planes cluttering up the air!" That was the brand of hard-headed opposition that had to be overcome while the CAP was still in the planning stage—and again when war threatened these shores.

The CAP grew "out of the desire of the civil airmen of the country to be utilized with their

equipment in the common defense." It didn't pop out of a bottle like a full-grown genie nor did it begin entirely from scratch. The need for banding together America's civilian fliers was foreseen as early as 1938, when Gill Robb Wilson, aviation writer and World War I pilot, devised a plan to utilize America's 100,000 pilots, 25,000 private planes, and 2,000 small airfields for defense.

Lean, fast-talking Gill Wilson had traveled through Germany in 1936 on a reportorial assignment, and what he saw there worried him. He told Governor Charles Edison of his home state, New Jersey, that he considered war inevitable. And when conflict came, he stressed, this country would have to depend heavily on home-front contributions. Given the governor's go-ahead, Wilson commenced work on a state-wide scheme that was to evolve as Civil Air Defense Services.

After several false starts, other privately sponsored movements began in 1940 to show how the job could be accomplished. The Airplane Owners and Pilots Association had its Civil Air Guard, with local units in a number of metropolitan areas. About the same time, the Civil Air Reserve was launched by Milton Knight of Toledo, Ohio.

As it turned out, New Jersey's Civil Air Defense Services, backed by Governor Edison and approved by Lieutenant General Henry H. Arnold and the Civil Aeronautic Authority's Robert Hinkley, became the model for the Civil Air Patrol that was to follow. Wilson's blueprint called for the policing of airports, the fingerprinting of everyone connected with aviation, the utilization of small planes for liaison work, and a patrol system along uninhabited stretches of coastline. This last was not for the purpose of spotting submarines, for the light planes' use in combatting U-boats was not foreseen at the time, but to prevent spies and saboteurs from being landed along the beaches, possibly by undersea craft. Dams, aqueducts, and pipe-lines were to be watched from the air to guard against sabotage. It seemed like an ambitious program then, but it hardly compared with the number and scope of assignments taken over by the CAP as the war years unfolded.

Other states hopped on the bandwagon. In April 1941, the governors of Colorado and Missouri approved air squadrons in their states. The well-organized Florida Defense Force, headed by "Ike" Vermilya and including many of the nation's top pilots, entered the arena in May. As the summer wore on, Alabama, Kentucky, Ohio, and Texas went into action.

While individual airmen in Keokuk and Columbus and Billings watched and waited, the fliers' spokesmen were at work along the Mall and in Manhattan. Thomas H. Beck, Chairman of the Board of Crowell-Collier Publishing Company—at the insistence of Kenneth Littauer, one of his editors and a World War I lieutenant colonel in the Air Force abroad—prepared and presented a recommendation to President Roosevelt on April 22, 1941, for the mobilization of private airmen. Beck also advocated pre-flight instruction for young people—a step which was deferred until the launching of the Cadet Corps in the autumn of 1942. Beck discussed his plan with Guy P. Gannett, owner of a New England newspaper chain, who was later to command the Maine Wing. After taking the idea to Fiorello H. LaGuardia, the OCD's air-minded director, Gannett was appointed to a special aviation committee along with Beck and Wilson. They were instructed to blueprint the organization of civil aviation resources on a national front. The committee submitted a program late in June 1941.

Reed Landis, World War I ace and an aeronautical expert, was appointed aviation consultant to the OCD director late that summer to assist with development of the plan and to help guide the project past the shoals of official opposition. Working with the advice and support of some of the country's leading airmen, Landis and Wilson whipped the paper organization into semi-final shape by early October. Still on the docket were the drawing up of directives, the preparation of application blanks, and the selection of wing commanders. Wilson went to Washington as CAP's first executive officer to work out the final details. In

the meantime, wings were unofficially banding together in many states pending the official announcement of the Patrol's inception.

General Arnold, a friend of the project from the beginning, set up the last necessary step in early November. He appointed a board of officers headed by Brigadier General George E. Stratemeyer to pass judgement on the plan presented by Wilson and his colleagues. He asked them to determine the potentialities of the proposed Civil Air Patrol and the role to be played by the War Department in making it an agency of the Office of Civilian Defense. The board, which included Colonel Harry H. Blee, Major Lucius P. Ordway, Jr., and Major Alexis B. McMullen, made a thorough study of the plan and the services which the CAP could render in case of war, and recommended that the necessary Air Force officers be assigned to set up and administer the organization. All that remained was for the official announcement to be made. This came on December 1, 1941.

Major General John F. Curry, affable AAF officer with scores of friends in civil aviation, was the first national commander. On his official staff were Colonel Blee, operations and training officer, and Gill Robb Wilson, executive officer. Wings sprang into action immediately in all 48 states. The commanders had been selected before the Patrol became official and most of them already had their programs underway. As the program gained headway, the demands on National Headquarters became extremely heavy, and additional AAF officers were assigned to help carry the load.

Each wing was broken down into local units made up of civilian volunteers. These included groups, squadrons, and flights—groups consisting of two or more squadrons, squadrons containing from 50 to 200 members, and the strength of flights ranging from 10 to 60 persons. Members received no salaries and paid their own expenses, except that when on Army-ordered missions they received a per-diem allowance in lieu of subsistence. The CAP, above all, was a volunteer organization—from wing commanders down to the newest recruits.

Getting into the CAP was not a simple matter. In addition to possessing special qualifications valuable to a flying outfit, the men and women who joined had to be of good character, citizens of at least ten years' standing, and of proven loyalty to the United States. As a safeguard against undesirables, fingerprint cards of applicants were checked by the F.B.I. Into the personnel files at CAP Headquarters came every fact that might be required to measure the backgrounds of members. Sometimes these files were consulted at government request to aid in the selection of men specially qualified for important war assignments.

The CAP uniform evolved during the first six months. Several early suggestions for garb to be worn by members when on duty (and paid for by themselves) included a blue, single-breasted suit and a special brown two-tone ensemble. In the end, Army-style khakis and OD's—with distinctive CAP markings to distinguish them from the military—were officially authorized by the War Department. The "U.S." on the basic shoulder patch worn on the left arm insured that a member of CAP captured by the enemy—as might have happened on coastal patrol—would be treated as a prisoner of war rather than as a guerrilla. Patrol members, incidentally, were the only civilians allowed to wear the "U.S." on their uniforms.

An epochal argument was waged by women members as to whether slacks, culottes, or skirts should be adopted for their use. The distaff side finally received permission to wear the WAC uniform with CAP cap and markings, and it was left up to local units to decide whether slacks or culottes should be used for flying.

The obvious advantage held by the Army uniform was that it was readily obtainable and could be utilized by members when they were later called into military service—as a high percentage of them were.

The Patrol was by no means a government-sponsored plan to provide free flight training—an impression promptly gathered by some outsiders. Flying time had to be paid for by each individual. The idea was not necessarily to increase the extent of private flying, but to keep civil aviation from being plowed under for the duration and to put it to effective use in the prosecution of the war. As General Curry, the national commander, stated at the outset, “Without such a plan, there might be no private aviation for the duration of the war; with such a plan, there is a chance that private flying may continue and develop.”

Along the West Coast, except for airline and military traffic, all flying was suspended indefinitely on December 8—the day after Pearl Harbor—to a distance 150 miles inland from the coast. With the mountains not far from the ocean at certain points, the distance might as well have been hundreds of miles in some areas. Pilots in Pacific units, including one unit in Southern California that reportedly boasted more air-time per man than any Army or Navy complement of like size, were not happy about being deprived of their opportunity to fly from their home ports. But the grounded squadrons refused to quit. They drilled and studied. Some moved their bases inland and the members made long, tedious weekend trips from home to airport. From time to time, Patrol members pooled their cars, set up temporary camps far from the coast, and engaged in flight maneuvers.

A few weeks after Pearl Harbor, massive Earle L. Johnson—commander-to-be of CAP and then the dollar-a-year director of aeronautics for Ohio—became alarmed at the easy-going carelessness in evidence around airports and at the unguarded condition of defense plants. He was appalled at the ease with which a saboteur could steal a plane and dump explosives on industrial targets.

True, private aircraft had been grounded throughout the United States for a few days following Japan's sneak attack, and the West Coast ban on private flying had buttoned up things in the West, but few security measures were being taken at most of the country's airports.

“It gave me the creeps to think what a hundred determined German agents could do to a hundred power plants in just one night,” Johnson told friends later. “They could drop their bombs, head for open country, land their planes in a field, walk away, and never be caught.”

The big Ohioan didn't brood long about the danger of wholesale aerial sabotage—he did something about it. At about eleven o'clock one clear winter evening, he gassed up his green and yellow Curtiss Sedan, squeezed his six-foot four-and-a-half inch frame into the cabin, and took off from the airstrip on his farm, some twenty miles outside of Cleveland. On the seat alongside rested three small sandbags. Johnson wasted no time. He climbed to 800 feet and streaked toward a cluster of war plants on the edge of Cleveland. In ten minutes he was looking down on familiar thoroughfares aglow with lights.

Easing the control forward, he commenced his run. His objectives were three large buildings that stood in a straight line—a chemical concern, a power plant, and an aircraft-parts factory. When he leveled off at 500 feet, he could distinguish the blurred forms of workers near the windows inside the nearest target.

Now was the time. Johnson pitched one of the bags out of the monoplane's cabin at point-blank range. He couldn't have missed that broad roof if he'd tried. As the Curtiss swept over the two other buildings—immense black hulks in the darkness—two more sandbags plunked onto their objectives. Inside the plants, workers on the night shift were oblivious to the drama being enacted overhead. They didn't hear the plane—the humming of the machines and the whirring and screeching of steel on steel made too much noise. Only a puzzled night watchman and two or three persons abroad on nearby streets glanced skyward and wondered at the black, flitting shadow.

When Johnson called up each of the plant superintendents the next morning and informed

them they would find sandbags on their roofs, they countered with a "So what?" reaction. But when he went on to explain how the bags had gotten there, both their interest and their tempers picked up considerably. However, nothing was done about the "raid" until a few days later when Ohio's director of aeronautics called on CAA Headquarters in Washington and described his nocturnal excursion.

The kickback might have proved disastrous to the infant CAP, but the story had a happy ending. CAA officials blew up, then subsided somewhat. They sent out orders calling an immediate halt to all civilian flying until steps could be taken to safeguard airports and restrict indiscriminate joyrides through the ozone. A week or so later, every sabotage-conscious pilot in America breathed easier as airports were placed under armed guard, aircraft not based on authorized ports were rendered unflyable, and no planes were allowed to take off without CAA clearance.

The lesson taught by Johnson's raid on the three Cleveland war plants stuck. Every flight made by private pilots during the remainder of the war had to be for some necessary reason—and it had to be a damn good one.

Into the giant funnel that was the Civil Air Patrol flowed pilots, mechanics, radio operators, photographers, doctors, nurses, and others equipped by their training to render effective service. In a few months, CAP enrollment hit the 40,000 mark. Many members were seasoned pilots with hundreds of air-hours; others had never been up in a plane. The oldest pilot to sign up was Lieutenant A. I. Martin, 81, of Montour Falls, New York. He ran an airport on his farm, and some of the youngsters who soloed over Martin's cow pasture later flew for the Army and Navy.

Every trade and profession was represented. Businessmen, shoe clerks, plumbers, stenographers, parsons, and housewives worked alongside such celebrities as Governor John W. Bricker of Ohio, Concert Pianist Jose Iturbi, and Actress Mary Astor. And did they work! Long hours and, in many cases, real sacrifices were called for. Some members took time from their regular jobs and most of the others poured every spare minute they could muster into the Patrol's activities. A mechanic in an Eastern unit rode a bicycle twenty miles every meeting night, come, rain, snow, or fog, to put in four hours tinkering with engines at the squadron hangar—after a full day's work. One woman, a grandmother, drove an airport bus for Patrol members in California.

Not every member of the CAP was a 24-carat patriot with a red, white, and blue backbone. Some volunteered because it was the best way they knew to get in some flying, since wartime restrictions had eliminated virtually all private sky-junkets outside the CAP. Others thought the organization sounded more exciting than any of the other war-spawned volunteer groups. They could wear a uniform, maybe get up in a plane once in a while, and have a mouthful to tell the girls at the office or the gang down at the gas station. Then there were those who were marking time prior to induction into the Army or Navy. Some pre-flight training, or, in the case of pilots, additional hours in the air, might give them the wedge they'd need to squeeze into the flying end of one of the services.

But a surprisingly high percentage of the airmen and "kiwis" in the CAP were there because of their strong desire to be of service in the best way they knew how. They liked airplanes, they knew what light aircraft could accomplish, and they recognized the nation's need for a variety of home front missions. A few of the oldsters had been pilots in World War I. Some were paunchy and others were still slim—but gray-haired. They were too old to fly in combat again, but there was work for them, too. And some individuals were attracted to the CAP because they had sons, brothers, or sweethearts in the Air Force.

During the war years, there was to be more downright unselfishness and self-sacrifice invested in the Patrol than in any other volunteer group, with the possible exception of the Red Cross. And the sportsmen fliers who contributed planes and money weren't the only

home. Through help summoned by Hawkes, the sputtering plane was guided in for a safe landing.

Pigeons entered the communications picture, too, when a number of units trained feathered couriers to carry messages from planes back to their home stations. If other means of transmitting information were unavailable, the birds could do the job. The Chicago Heights squadron was among the outfits that experimented successfully with pigeons. On one occasion, ten birds were released from a CAP plane at 2,500 feet. The Piper scooted back to the airport to observe the results, and all the pigeons arrived safely at their loft a few minutes later.

Describing the test, Lieutenant Lloyd Reckner, squadron communications officer, said, "It is obvious that in these days of rationing, a radio may not always be available. Our trial proves the homing pigeon a valuable aid in case of emergency. When the experiment first came up, the pilots were in doubt about a pigeon being able to weather the big gust of wind from a propeller. In the trial flight, it developed that if the pilot banked sharply to the left and the pigeon were released at the same time from the window in the right door, the bird would follow the under-surface of the right wing, up and away from the ship without any trouble."

Before many weeks went by, some of the Chicago Heights pigeons had 500- and 1,000-mile flight diplomas to their credit.

The Alabama Wing conducted a highly successful test with the birds on a special scouting mission. Members of the Birmingham squadron were routed out of their beds at 3 A.M. one Sunday morning and, on reporting to Central Park Airport, were instructed to locate an unidentified plane reported to be based in a nearby county. Three flights took off in search of the quarry.

About two hours later, Cathryn Stamp, the only girl in the squadron, spotted the missing plane in a small field. It was partly concealed by a tarpaulin. She scribbled the information on a piece of paper, stuffed it into a capsule, and attached the message to the leg of "Big Shot," a large blue carrier-pigeon. Thirty-five minutes later, "Big Shot" fluttered into communications headquarters atop the Age-Herald-News Building. He had flown home at a speed of approximately a mile a minute. It turned out that the plane spotted by Observer Stamp belonged to Squadron Commander G.I. Alley, Jr., who had planted it in the field specifically for this mission.

Other wings convinced of the value of pigeon couriers were: Indiana, which was equipped to transmit messages via its several roosts over distances up to 1,000 miles from Wing Headquarters; Nevada, which made good use of the birds during search and rescue operations in wild, rugged country; and Kansas, where pigeons were trained to carry messages in chronically flooded areas in which the usual means of communication could not always be counted on.

Message-dropping and message panels were other emergency communication techniques practiced by the CAP. In Indiana, each plane on practice missions carried two half-pint cylindrical ice-cream containers for message-dropping. For better visibility, a five-inch strip of bright yellow cloth was attached to each container by making a knife slit in the bottom, inserting the end of the cloth, and tying a knot inside. Weighted with a few pebbles, it was ready for use.

In working with message panels, the Oshkosh, Wisconsin, squadron adopted the following procedure. Signal crews first went out by car, after which planes made a systematic search for messages spread on the ground by the signalmen. On reading the panels, airmen wigwagged their wings in acknowledgment and circled the spot so the crew could set up further panels to complete the message. When the pilot and observer had the whole story, they wrote it out, inserted it in the center of a roll of tissue paper, and dropped it to the signal

crew from a height of about 100 feet.

Difficulty was sometimes encountered by aircraft engaged in dropping handbills. When released separately, the bills often collected on the guy wires of a plane like snowdrifts along a fence, causing considerable drag. The Saginaw, Michigan, unit worked out a practical solution to this problem. Members tied the handbills in bundles of about 1,000 with light string through which a heavier cord was looped and pasted down with gummed paper tape so it wouldn't snarl. The end was then tied inside the plane. That way, both hands could be used in dropping the bundle and there was no danger of the cord burning or cutting a man's fingers.

Flight proficiency missions prepared CAP members for any type of home-grown or official assignments that might crop up. Flight training itself was not given by CAP, however, although members were encouraged to learn to fly by purchasing time from private instructors. Only pilots and observers with more than 50 hours of stick time to their credit were permitted to take a particular series of flight exercises—the first of which was a patrol mission along a waterfront or along the state or county border. A crew flew a prescribed section of the border and watched for distinctive markers placed at points unknown to them. An automobile in an unusual place, a cloth strip, a smudge pot, or anything else out of the ordinary might be planted to test alertness. Other exercises included simulated rescue missions, "bombing" runs, formation flying by squadrons, mock forest patrol flights in periods of poor visibility (as would be the case when dense smoke filled the air), and night flying.

The Willoughby, Ohio, squadron hung up something of a record one night in September 1942 when sixteen planes and 40 members performed 175 landings between nightfall and three o'clock in the morning at Perry Airport. Squadron Commander C.W. Grove and Operations Officer Frank Sanzo shot 30 landings apiece with only a flare path to guide them in. In the meantime, ground personnel pulled guard duty every two hours, while other members slept in tents erected by the squadron's canvas crew.

The Iowa Wing consistently made its practice missions livelier by injecting imagination into simulated situations. One time a "saboteur," impersonated by one of the members, flew in to blow up a defense plant, only to be "shot down" by intercepting aircraft. But Iowa's activities were not all of the make-believe variety. The wing cooperated with state authorities to check on carelessly stored explosives in the vicinity of airports. Owners were required to shift this saboteur bait to safer places.

A blindfold test for training in navigation was concocted by the West Virginia Wing when a pilot or observer was blindfolded and taken up for an airing. After about fifteen minutes for a comparative greenhorn or an hour for an experienced hand, the blindfold was removed. The object was for the passenger to locate his position quickly and give the pilot the course back to the airport. "Try it on the fellow who says he knows every inch of the countryside," West Virginians advised other CAP wings—and many of them did.

Missouri units were the first to report the development of a grid map of their state, dividing it into ten-mile squares from a zero point. All squadrons were furnished maps to the scale of one inch per mile for their local terrain and one-half inch for other counties. Emergency landing fields which were spotted on the maps proved of value.

Army training methods were adopted by CAP instructors who had the opportunity to see streamlined GI techniques in operation. Members of the New Jersey Wing staff, who attended the Second Service Command Tactical School, repeated the Army's practice of staging skits to demonstrate how *not* to do a thing. Using the same approach, one CAP instructor of a ground class in aircraft procedure wore a big floppy overcoat while swinging a prop. With his ankles in mud and his footing insecure, he neglected to place chocks under the wheels of the demonstration plane. Leaning on the prop and treating it with suicidal indifference, he garbled the exchange of signals between himself and the person in the cockpit. In

short, the teacher did everything wrong.

"This type of training makes a lasting impression on students," reported Major George A. Veihmann, then the New Jersey Wing commander.

Along with jazzed-up teaching techniques, the AAF aided the CAP by turning over instruction manuals and shipments of training aids. In addition, they supplied CAP units with large quantities of surplus equipment, such as worn or obsolete motors, instruments, and radio sets.

It was characteristic of the Civil Air Patrol that improved techniques and discoveries made by one wing or squadron were passed around to every unit through the CAP *Bulletin* or individual wing publications.

Simulating air support for the training of state guardsmen became an important summer operation for CAP fliers in many areas. In Iowa, during the summer of 1942, the CAP cooperated with the guard in a mock attack on ground troops maneuvering at Fort Dodge. Quarter-pound flour bags were used for the "bombing."

Early the following winter, the Missouri Wing participated in a maneuver with the Coast Guard and four battalions of the state guard. The problem was for an attacking battalion to cross the Mississippi River at St. Louis. Planes kept regimental headquarters informed of developments, delivering messages by radio, pole pickup, signal gun, and panels.

Cooperation worked both ways. Some of the finest outfits in CAP were developed in those early months through intensive instruction given by state guard officers and drill sergeants.

When practice blackouts were held, CAP squadrons participated in several ways. Usual practice was to dispatch one or two ships to carry the chief air-raid warden or blackout inspector over the darkened community to evaluate the results. A second function practiced in some cities was for CAP members on the ground to post guards around hangars and to mobilize at the airport and block off runways with their automobiles and other obstructions so that no enemy could possibly land in the event of a real raid.

Through simulated bombing attacks on dozens of towns and cities around the nation, the CAP did much to keep the citizenry alert to the possibility of air raids by the Nazis. Methods of staging the "bombings" were many and ingenious.

At Birmingham, Alabama, one of the most spectacular civilian defense demonstrations of the war broke upon the city late in July 1942 when, without warning, 50 planes of the Alabama Wing roared overhead and dropped more than 6,000 "bombs" on the industrial sections. Tagged with red and yellow streamers, to mark them as incendiary or high explosives, bags of sawdust landed on every objective. On the ground, non-flying personnel kept busy putting out "fires" and evacuating the "injured." The planes that struck Birmingham came from several fields and joined forces for the 30-minute attack. Each pilot had been briefed in detail as to the objectives to be covered.

Another city to suffer theoretical destruction was Tampa, Florida. With motors buzzing like angry wasps, 35 CAP planes swept over the community, dropping 1,500 paper bombs, each containing a "charge" of two ounces of flour. At Enid, Oklahoma, the local press, commenting on a dummy raid, stated: "If sawdust were powder and Aeroncas were Stukas, Enid would now be a shambles, having been gleefully bombed by 'enemy' CAP flyers."

Six-year-old Lorraine Krug of Treynor, Iowa, was the first casualty of the wave of bombings staged by squadron after squadron that first year of the War. Pottawattamie County farms were under attack by planes of the Iowa Wing on a hot day in August 1942 when the accident occurred. Lorraine was attempting to catch one of the "bombs" and was hit on the forehead by the pellet, which contained an ounce of sand and the message: "Get in the scrap—the next plane might be a Jap." It sprayed her with sand and left a small bruised spot. After a few tears, Lorraine forgot she was a casualty and joined her parents in hunting

scrap on the Krug farm.

The velocity of paper bombs was determined by John Hopkins University physicists following a September 1943 raid on Baltimore when the city was pounded by 50,000 missiles, each weighted with an ounce of sand. Consulting their mathematical tables, the scientists computed the terminal velocity of the bombs at 25 feet per second and pronounced them harmless. The impact, they concluded, was "just enough to dent an old felt hat."

With CAP air raids "flattening" many cities in the United States, the practice of dropping sacks of good baking flour was discouraged on the grounds of wastefulness. Favorite substitutes employed in later bombings were wood-ashes, sand and sawdust.

In the first nation-wide scrap hunts early in 1942, wings conducted state-wide searches for automobile graveyards, abandoned farm machinery, and other little presents for the Japs and Germans. Later, with the blast furnaces of Pittsburgh and Gary and Cleveland blazing hungrily as the speed of production threatened to outstrip supplies of raw material, CAP pilots and observers took a second look at the countryside and located still more scrap. Treasure hunts, 1942 style, were conducted in every state with rewarding results. An old mine with rusted machinery was spotted near Canfield, Ohio; junked automobiles and clusters of abandoned farm machinery were charted in Illinois; and four old sawmills with tons of scrap were found in the neighborhood of Tampa, Florida.

The Northfield, Ohio, squadron carried the local scoutmaster, Edward Anderson, as a passenger in one of their planes to spot scrap sources from the air prior to a Boy Scout salvage drive on the ground. At the end of an air survey of the countryside, Anderson announced that 250,000 pounds of old metal had been located. Said Anderson: "Locating scrap from the air is especially effective in country areas. Materials sighted within twenty minutes could not have been found by ground forces without several weeks or possibly months of search."

The variety and scope of CAP missions during the war years were nothing less than fantastic. There were the standard jobs—bond-drive jamborees, simulated bombings, maneuvers with state guard troops, scrap hunts, and blackout and camouflage inspections. Then there were those off-the-track missions, some large and some small, that also deserve attention.

Among the more important flights was the annual ice patrol engineered by planes of the Michigan Wing. Each spring, after the early thaw had cracked winter's grip, pilots and observers would fly over sections of Lake Erie, Lake Huron, and the Detroit River to spot breaks in the ice. Sometimes steamship captains went along as passengers to chart their course into open water. The ice patrols helped to hurry the opening of navigation each spring. This was a real boon to the war effort, for 100 million tons of cargo moved over these waters annually, and the earlier shipping began, the greater the total tonnage moved before the ice closed in the following winter.

Another ice patrol was flown by CAP airmen from Buffalo, New York, who cooperated with the Weather Bureau by reporting conditions on Lake Erie. Major Stuart G. Welch's fliers also aided the Coast Guard in searches for lost fishermen.

The testing of the air-warning net that guarded the coasts and certain critical inland areas of the United States became a major CAP project in some regions. CAP planes were especially active along the Gulf of Mexico in 1942-1943. The Texas Wing put 75 ships into the air every weekend for many months, and Louisiana and Mississippi pilots also gave their plane-spotters a sustained workout. Flying under confidential Army orders, the civilian pilots cruised over observation posts, whose duty it was to relay sightings to air-raid warning centers further inland. Flights were traced out according to reports phoned in, and any laxity by spotters along the line of flight showed up quickly. It took the tests to bring out the fact that in the event of a bona fide attack by enemy aircraft, trunk telephones would be tied up

with such a heavy volume of calls that no communication would get through—a situation promptly remedied by installation of additional trunk lines.

It may sound like a tall yarn, but pilots of the New Hampshire Wing actually did some prospecting from the air. They searched for mica—rated by the War Production Board as one of the more critical minerals during the war—and later extended operations to include beryl, feldspar, and quartz. Flights over the Keene area alone during the fall of 1943 resulted in the location of ten mica outcrops, although the vicinity had been extensively mapped and prospected for many years. New Hampshire pilots proved that a few hours' flying could save thousands of dollars and weeks of time.

Another original assignment was flown by Lieutenant L. J. Letnes of the Grand Forks, North Dakota, squadron. He hedgehopped from farm to farm in the summer of 1944 as shepherd to a group of twenty combines which were cutting their way through the Great Plains wheatfields. Letnes surveyed the route, lined up acreages to be cut, and made many of the arrangements required in moving a mechanized caravan so great a distance. Because the crops were two weeks late that year, speed was a vital element. The wheat was cut finally with fewer men and machines and less fuel than ever before—largely due to the flying "advance man."

A bizarre but practical mission was flown by pilots of the California Wing to protect the rice crop in the San Joaquin Valley against the depredations of wild ducks and geese in the autumn of 1943. The farmers had 230,000 rice acres that year, and the wildfowl—apparently tipped off by their scouts—moved into the area three weeks earlier than expected, just as the crop was heading. These uncounted thousands of birds could devastate 40 acres of rice in a night.

Flares, smoke bombs, and other ground tactics merely chased the birds from one field to another. In desperation, the farmers raised a fund and called on the Civil Air Patrol for an aerial blitz. Grounded for much of the war because of West Coast defense restrictions, CAP fliers of the Sacramento area were given special permission by military authorities to assist the Fish and Wildlife Service in this project.

The early morning and dusk attacks delivered by the light CAP planes, which flew at grass-skimming height, produced the desired results. Sometimes blasting at the ducks with shotguns, sometimes tossing practice hand-grenades, the duck "cowboys" succeeded in routing thousands of the birds. Then, flying behind the flocks, they drove great numbers ahead of their planes to the Willows game refuge and to Benecia, where the Fish and Wildlife Service had deposited 400 tons of feed in an effort to divert the ducks from the ricelands. The ducks flew at a speed of about 60 miles an hour and so did the CAP puddle-jumpers, making the planes ideal for the herding job.

Chief of the "cowboys" was Captain Ed Meyers, commanding officer of the Sacramento squadron, who was in charge of the aerial operation in 1943 and again in 1944, when the ducks again threatened the ricefields. Meyers, a mechanic and a pilot since 1914, received major assistance from Lieutenant Gene Hughes, a rice-farmer and a one-time crop duster; Lieutenant George W. Hancock, a Sacramento jeweler; and Lieutenant G. W. Hilton, 62-year-old tractor salesman from Modesto.

Cost of the CAP's successful month-long war against the wildfowl in 1943 was \$1,600, which was considered something of a bargain by the farmers, who stood to lose at least \$100,000 had the ducks been allowed to eat their fill.

That wasn't CAP's only contribution to wartime agriculture. In Florida, volunteer pilots on several occasions saved citrus fruits and vegetables by flying all-night vigils over groves and truck-farms, stirring up the air and thus forestalling a freeze. One successful sortie prevented a January frost from nipping an 8,000-acre tract of tomatoes, beans, and berries. Other hedgehopping excursions enabled thousands of bushels of apparently doomed

oranges and grapefruit to reach market.

Emergency flights with ration books were made in Minnesota and Oklahoma. Northwest Angle, a snowbound community near the Canadian border, was the recipient of one shipment. Captains Orville Hickman and A. E. Pacine flew the load from the Twin Cities to Bemidji, where Lieutenant Forrest Rising, the Bemidji C.O., completed the trip in a ski-plane. He was taking no chances. With him, Rising carried an experienced woodsman and supplies for ten days—just in case. The other ration-book pilot was Lieutenant Charlie Rhoades, who flew 5,000 books from Oklahoma City to Durant, Oklahoma. Rhoades was the same flier who carried serum in zero-zero weather to the tornado-stricken Pryor area in 1942.

When wolves and coyotes in the Texas Panhandle showed too great a liking for steak-on-the-hoof in the winter of 1944, harried ranchers appealed to Governor Coke Stevenson for help. He in turn called upon the Texas Wing of the CAP. As a starter, a party of 50 CAP seniors and cadets spent a weekend on the ranch of C. C. York, who had lost 1,400 head of sheep and cattle to wolves during the preceding year.

Four planes took off on the hunt. Whenever a wolf was spotted, one plane would circle the spot and keep circling while the other three ships would swoop down as low as twenty feet and open fire with twelve-gauge shotguns and Reising machine guns. The latter were perfect for the purpose since their short barrels made them easier to handle than a shotgun in cramped quarters. In order to make shooting easier, the doors were stripped from the planes. Wing Commander, D. Harold Byrd, flying in a Piper Cub and hanging from his lifebelt, got in only one shot that first day—but after he potted his wolf, he said, "It was more fun than anything I've done since the war started."

During the 90 days of aerial hunting permitted that season by the CAA, the Texas wolf-hunters did much to curb the furry killers and cut down livestock losses.

Oklahoma made several drives against coyotes. On a single day, 46 of the marauders were shot in a five-county area. Some were picked off from the air, while in other cases spotter planes zoomed overhead and wagged their wings to summon ground parties who closed in for the kill. One CAP team wounded a coyote from their plane, then landed to finish him off. Coyote-hunters in South Dakota accounted for their share of the four-footed villains of the plains, engaging them in an almost incessant war. And in Utah, where stockmen had advocated the use of helicopters by aerial hunters, they were glad to settle for CAP sharpshooters in Cubs and Taylorcrafts.

Also on the wildlife side was the waterfowl survey made in ten states in the winter of 1944, with CAP pilots carrying government agents from the Fish and Wildlife Service of the Department of the Interior. The aerial survey to observe concentrations of wild ducks and geese extended from the West Coast to the Middle West and to several of the Southern states. The Mississippi Wing sent planes out over the bayous so the game-management specialists could estimate the numbers of wildfowl concentrated there. In one field, they counted 5,000 feeding ducks.

CAP fliers played good Samaritan one year to deer roaming the brush country of Pike and Wayne Counties in Pennsylvania. The deer had been going to the railroad tracks to lap up brine spilled from refrigerator cars. By midsummer that year, 32 deer had been killed by trains. To remedy the situation, pilots under the command of Lieutenant John G. Sandt, dropped 1,000 pounds of salt-blocks parallel to the tracks. The terrain was far too rough for anyone to cover on foot.

There were occasions when the CAP would take time out to flex its muscles by putting on a mobilization within the various wings. On Memorial Day, 1942, members of the Pennsylvania Wing descended on Black Moshannon Airport in the heart of the Allegheny Mountains. Some 800 uniformed members from the state's five groups passed in review

before National Commander Earle Johnson and Wing Commander William Anderson.

The most impressive display, however, was the aerial demonstration with 290 private planes taking part. Every type of small aircraft was represented as the pilots winged in from every section of the state. This fleet was greater than that of all the commercial airlines in operation in the United States at that time.

Another full-dress mobilization still talked about was the one staged a year later by the Michigan Wing. On only a week's notice, nearly 1,600 members with more than 200 planes, plus trucks and trailers, converged on Lansing from every corner of Michigan.

It was a banner day for the CAP Michigan as squadron after squadron marched by the reviewing stand at the State Capital Airport. Governor Harry F. Kelly was there to receive the smart, snappy salutes of each outfit as it passed in front of him.

Following the review, the members convened at the 119th Field Artillery Armory where Governor Kelly, Wing Commander Ray Baker, and other top CAP leaders officially greeted them, and enthusiastically praised the work that each squadron was doing.

Gatherings such as these were great morale boosters. They served to bring the work of the CAP into the public eye and, what was more important, showed, in a vivid and colorful manner, the concerted strength of the organization—strength that was needed to accomplish their objectives successfully.

CAP COASTAL PATROLS

<i>NO.</i>	<i>Final Location</i>	<i>Activation Date</i>	<i>Date of First Patrol Operations</i>
1	Atlantic City, New Jersey	February 28, 1942	March 10, 1942
2	Rehoboth, Delaware	February 28, 1942	March 5, 1942
3	Lantana, Florida	March 30, 1942	April 2, 1942
4	Parksley, Virginia	April 16, 1942	May 17, 1942
5	Flagler Beach, Florida	March 11, 1942	May 19, 1942
6	St. Simons Island, Georgia	May 12, 1942	May 20, 1942
7	Miami, Florida	May 13, 1942	May 14, 1942
8	James Island, Charleston, South Carolina	May 23, 1942	May 30, 1942
9	Grand Isle, Louisiana	June 25, 1942	July 6, 1942
10	Beaumont, Texas	June 24, 1942	July 7, 1942
11	Pascagoula, Mississippi	June 24, 1942	July 7, 1942
12	Brownsville, Texas	July 8, 1942	July 24, 1942
13	Sarasota, Florida	July 9, 1942	August 7, 1942
14	Panama City, Florida	July 16, 1942	August 8, 1942
15	Corpus Christi, Texas	July 20, 1942	August 7, 1942
16	Manteo, North Carolina	July 21, 1942	August 10, 1942
17	Suffolk, Riverhead, Long Island, New York	August 6, 1942	August 18, 1942
18	Falmouth, Massachusetts	August 25, 1942	September 14, 1942
19	Portland, Maine	August 18, 1942	September 1, 1942
20	Bar Harbor, Maine	August 22, 1942	September 5, 1942
21	Beaufort, North Carolina	September 7, 1942	September 27, 1942

FROM MAINE TO MEXICO

Through the spring and summer of 1942, more coastal patrol bases were activated along the Atlantic seaboard and the Gulf of Mexico by order of the Air Forces. Some took root on small commercial or municipal airports; others were literally carved out of the wilderness by CAP's active duty volunteers. By September, planes were winging out over the shipping lanes from 21 bases, providing top cover all the way from Bar Harbor, Maine, to Brownsville, Texas.

At Parksley, Virginia, men of Coastal Patrol No.4 cut down trees and converted a chicken farm into an operating base; at Manteo, North Carolina, at the site of Sir Walter Raleigh's "lost colony" and close to Kitty Hawk, Base 16 operated on a postage-stamp field on the edge of a swamp swarming with man-eating mosquitoes. At Beaufort, on the south end of Cape Hatteras, a base was constructed from start to finish—in overpowering proximity to a fishoil plant. Early arrivals at Pascagoula, Mississippi, found only a flooded field and an old swamp-rat waiting for them. To Grande Isle, Louisiana, once the lair of Jean Lafitte and his pirate band, came personnel of Patrol Force 9, who lived in a tumbledown resort hotel near a colony of Creole shrimp fishermen.

Other units dug in at Bar Harbor and Portland, Maine, where the winters are long and hard; at Falmouth, Massachusetts, in the heart of Cape Cod; at Suffolk, Long Island, far out on the South Shore beyond commuter range of New York City; at James Island, near Charleston, South Carolina and at Saint Simons Island, Georgia, where personnel moved in-to reconditioned CCC buildings; at Daytona Beach, Miami, Panama City, and Sarasota, among Florida's palm trees and sandy beaches, and at the teeming Texas ports of Brownsville, Corpus Christi, and Beaumont.

"Bring money enough to last you a month, and picks and shovels, because there'll be no landing field until we've built one."

That was the wire that Major Isaac W. Burnham, 2nd—better known as "Tubby" Burnham—sent to the fliers assigned to him after he took a look at the site of the base he was supposed to establish at Parksley, on the eastern shore of Virginia.

The sandy field was dotted with scrub-pine and bounded on three sides by deep ditches. The runways would be short and were blocked off by rows of trees. The only buildings on the premises consisted of a rundown farmhouse still occupied by the farmer and his family, a sagging two-story shack populated by 5,000 chirping baby chicks, an old barn, a woodshed, and a rustic two-holer. Authority was given to move the family to town, but the chicks were to remain for three months, until old enough to sell.

At the cost of blistered palms and much sweat, Base 4's pilots, observers, and ground crews converted the farmhouse into an administration and operations building, scrubbed and scraped and patched the chicken house until it could pass for a barracks, and cut down the trees—which, incidentally had to be paid for by CAP. A shack with a roof on it, inadequately stocked with tools brought to Parksley by a Richmond mechanic, became the hangar. During those early weeks, "home" for most of the personnel was the loft above the local firehouse. Later, many found rooms in private dwellings.

In mid-May, just one month after Major Burnham's exploratory visit, the first patrols

were policing the ocean off the Virginia Capes, from Winter Quarter Shoals to Norfolk Harbor.

Employing lessons learned at the three experimental bases, coastal patrol fliers spotted submarines for the Army and Navy, dropped bombs and depth charges on others, located survivors of torpedoed vessels, and flew escort missions for convoys.

There was nothing haphazard or amateurish about the patrols, which were under the operational control of the Eastern and Gulf Sea Frontiers, working through the Antisubmarine Command. Teletype circuits connected the entire chain of bases with central military control points and with National Headquarters in Washington. Observers in CAP planes kept plotting-board operators at their own bases and at the control points along the coast continually advised as to activity in their sector. As the reports were received at communications centers, magnetic boards flashed the exact position of all convoys and patrol aircraft. At the same time, information was relayed over the teletype loop to adjoining bases, keeping them briefed regarding the situation in nearby waters. Equipped with coding and decoding machines furnished by the Navy, the various CAP communications staffs were able to stay abreast of every development.

The U. S. Weather Bureau set up observaton stations at all the bases. At periodic intervals, weather observers reported local conditions to a control headquarters, and in return received area forecasts. This service was a great aid to bad-weather flying, at the pilots knew what sort of flying to expect over the ocean and could plan accordingly.

Seamen on tankers and freighters were thankful for the presence of the little Stinsons, Wacos, and other single-engined airplanes over the shipping lanes. The reassuring purr of their engines was music to a sailor's ears. A ballad composed by Captain Elbert Isom, a Long Island man who flew at Beaumont, describes the attitude of ship captains and deckhands alike. One verse goes:

*When the cold gray dawn is breaking
And the wolf pack hovers nigh
When the skipper scans the ocean
With a grim and worried eye,
Then a distant sound grows louder
And brings comfort to his soul,
For he knows his ship is covered
By the Civil Air Patrol.*

The sentiments of the men who got down on their knees to CAP patrols and waved their thanks from the decks of Allied vessels were also voiced by Hoyt Haddock, of the CIO's Maritime Committee, when he appeared before a Senate finance sub-committee to urge further government support for the bases along the coast.

"You can't know what a tremendous morale-builder it is for those seamen to be able to look up in the sky, no matter where they may be, and see a friendly little CAP plane up there—a plane with a radio, which can get help to them in a matter of minutes if they need it."

The patrols, he added, were such a great aid to the morale of tanker crews that they had proved an important factor in getting men who had survived torpedoing after torpedoing to go back to sea again.

Behind the coastal patrol, making possible its existence, were the wings and the squadrons. The men who garrisoned the bases came from 45 different states, their planes from nearly that many. The coastal patrol was a cooperative, nation-wide enterprise that extended far beyond the states which contained the bases. Brownsville was staffed mainly by

volunteers from the Pacific Coast, among them Movie Director Henry King and Mary Astor, the film star. Bar Harbor's commanding officer was Major James B. King, big and rugged Milwaukee garage-owner; and the majority of Pascagoula's personnel called Michigan home.

Almost the entire town of Sandusky, Ohio, attended the funeral of First Lieutenant Lester Milkey, who died with First Lieutenant C. W. Andrews of Springfield, Ohio, in a crash at sea near Panama City, Florida. In the throng were more than 1,000 CAP members, fourteen of whom volunteered at the end of the service to take Milkey's place on coastal patrol for the duration. The link between the inland units and the active-duty fliers was a strong one.

Financial help came from local units and from civic organizations. The "Sink a Sub Club" sponsored by Michigan's Exchange Clubs raised \$12,000 in three weeks' time to equip the Pascagoula base; twenty North Carolina squadrons contributed \$100 each to help the Manteo base get started; a group of mechanics in the Middle West raised enough money to send one of their number to the coast for several months; and in Dallas, the High Noon Club donated a Stinson Voyager, "The Spirit of Dallas," to one of the Texas bases. Further aid came from dances, bingo parties, and other benefits put on by scores of inland units. A South Dakota squadron even staged an aerial coyote roundup and turned over the proceeds from the sale of the pelts. The Virginia General Assembly appropriated \$5,400 to install two-way radios in Base 4's planes, and the North Carolina legislature voted a sizable sum to build up the bases at Manteo and Beaufort.

Set down amid the stubble of an old cotton field on James Island, near Charleston, Coastal Patrol No. 8 received substantial assistance from the South Carolina Aviation Commission. The base blossomed into one of the South's best when a batch of former CCC buildings was dismantled, moved in by truck over narrow dirt roads, and erected. Under the leadership of Major Jack R. Moore, of Portland, Oregon, the men at James Island later constructed and furnished an excellent recreation and classroom building. Coastal Patrol No. 6, located on fashionable St. Simons Island, near Brunswick, Georgia, also made good use of former CCC barracks and shop buildings. The assistance of the state and various civic groups was enlisted by Major Tom H. Daniel, Jr., of Atlanta, the base commander, in helping to develop the St. Simons base.

Individuals as well as organizations pitched in unselfishly to make the coastal patrol a success. One of the foremost among them was Major George W. Whitney, a leading Philadelphia attorney, who voluntarily assisted a number of the East Coast bases by setting up their accounting systems and helping to solve the endless fiscal and legal problems that kept cropping up.

Being a civilian organization, the CAP had a difficult time obtaining priorities for needed supplies. For many months, pilots and observers flew without Very pistols, rubber suits, flares, or life-rafts. At Manteo, operations faced a delay because no Mae Wests had come through and it was against regulations for patrols to go out without some type of life-saving gear. Then seven dead Germans were washed up on the beach one night, wearing kapok life-vests, and the CAP crews flew on schedule.

For several months, the kapok vests and the inflatable Mae Wests were the only safety equipment carried by pilots and observers on their lonesome flights over the wide and rolling ocean. Later, the bases provided themselves with "barracuda bags," which consisted of a canvas sack large enough for a man to sit or stand in, attached to a large, inflated inner-tube. The bags were originally designed by rum-runners of the Prohibition era to discourage the small but vicious barracuda—and sharks, too—from nipping at shipwrecked mariners. Northern fliers, especially, were a bit skeptical about this type of flotation gear. For one thing, they didn't have to worry about sharks or barracuda; for another, they weren't sure they could get inside the bags once they were in the water. The chief flaw was that the pilot

and observer who hit the "drink" usually had all they could do to abandon their planes, without pausing to drag the bulky rings along with them. Usual practice was for the bags to be dropped to survivors by the sister ship.

"Zoot suits," those all-rubber monstrosities made in one piece and covering hands and feet, became the bane of coastal patrol crews at Northern bases midway through the winter. The suits, which ran in only one size, evidently had been designed to fit King Kong. They were supposed to enable a man to last for several hours instead of from fifteen minutes to half an hour if he went down in the frigid Atlantic. The suits were universally unpopular, but orders were orders and the "men from Mars" accepted their rubber burden with a certain amount of reluctance and not a few wisecracks. Even the most dapper of fliers looked like a long-armed gorilla or an unhappy penguin when he donned his "zoot suit."

After flying ocean patrols nearly a year, the bases finally received the pneumatic life-rafts they had been crying for. These made the prospect of a forced landing at sea a little less forbidding than the nightmare that had haunted pilots and observers since the very beginning.

Especially in the early months before CAP had established its position with the War Production Board and before it had any priority standing whatsoever, replacements for engine parts were almost impossible to get. Sometimes old friendships between private fliers and their former suppliers paid off if any stock remained. Later, priorities and good connections were absolutely necessary. For months on end, it was mainly through the inventiveness of certain inspired mechanics like Captain Billy Van Cleve, the Beaumont patriarch, and Captain Henry Muntz, Grand Isle's "chief cannibal," that the bases were able to fly daily patrols. Sometimes even their wizardry wasn't enough. The daily maintenance report for one of the Texas contingents on a particular date showed that only four of the unit's 30 planes were in flying trim. Several were off base getting major overhauls, a couple were "running rough," one was in New Orleans having bomb-racks installed, two had leaky valves, another needed miscellaneous repairs but could be taken up in fair weather, and so on.

Almost without exception, the bases that fared the best were those near military installations. Through personal contacts with supply officers and commanding officers, Mae Wests, rubber boats, and other gear were sometimes wangled in a semi-official way. One of the greatest providers and smoothest diplomats to wear a CAP uniform was First Lieutenant Louis "Tiny" Ferrare, barrel-shaped supply officer at Falmouth. He patronized both Camp Edwards, which wasn't an AAF base, and Otis Field. He commandeered an Army truck, plenty of blankets, and as many beds as he wanted. He was even able to obtain hams and other rations, sometimes flying supplies to Suffolk, the closely linked base on Long Island.

Subs were still plentiful off Cape Hatteras and in East Florida waters through most of 1942. Planes from Major Julius Gresham's Daytona (later Flagler Beach) base made 21 running attacks on submarines and were reasonably certain of two, one of which was reputedly hit squarely on the conning tower by a retired businessman in a Stinson Voyager.

Another plane sighted a sub heading east and kicking up sand in shallow water about four miles out. Several more CAP ships joined the party and six bombs were dropped. No one claimed a submarine—but a tremendous oil slick welled up and remained in the area for several days.

"We were in the most sub-infested territory to be found anywhere," said Gresham, whose fliers patrolled 200 miles of ocean from Jacksonville on the north to Melbourne on the south.

If there were no subs, Base 5's crews usually sighted the wrecks of ships, drifting survivors, and other evidences of U-boat activity. Until the end of 1942, two special patrols a day were run along the beaches to look for debris and bodies.

The lowest bombing by Daytona planes was at around 800 feet—and even then fragments

sometimes ripped through the wings. As was the case at all bases, patrol personnel were required to drop a specified number of practice bombs on a target in order to qualify for the overwater missions. Before loading up with actual bombs and depth charges, pilots practiced taking off and landing with the same weight in dummy bombs. Flying a 90-horsepower ship with a 100-pound "egg" suspended beneath the undercarriage was a tricky proposition. For one thing, the controls didn't respond as quickly to the touch; for another, the ship showed a tendency to "mush" in pulling out of a dive.

Operations off Miami Beach, which was the southernmost base on the East Coast, were frequently featured by the wreckage of ships sunk as far away as Cuba. The Gulf Stream comes close to shore at Miami at about five miles an hour, and survivors drifting into the base's territory on rafts and in lifeboats were numerous. The torpedoed Mexican tanker, *Porto De Llano*, was sighted on the first day of operations. The subs were enjoying good hunting in the busy Gulf Stream waters. In all, Major Lloyd Fale's Base 7 fliers saw eight Nazis and dropped approximately the same number of bombs. They aren't sure they sank any of them, but they had the satisfaction of preventing more than one torpedoing.

When the Navy took over the municipal airport at Miami, Number 7 moved out to Chapman Field, a World War I leftover, which one pilot described as "little better than a pine grove dotted with sand-crab holes." The single landing strip was a weathered piece of asphalt about 700 feet long. A partially completed hangar and one small frame building also graced the area. The only things there were plenty of were land-crabs, mosquitoes, and sand-flies.

Speaking of mosquitoes, they were a positive menace at Manteo, where the base sat on the edge of a swamp. Face-nets were a "must" and special details stood alongside the mechanics with Flit guns to protect their exposed hands from the insects. The situation was so bad at one time that two men had to be hospitalized after a particularly savage offensive. Later the unit was shifted to higher ground and the plague diminished somewhat. Base 16's insignia, appropriately, was a mosquito in the shape of an airplane.

The base that had everything in the pest line was Grande Isle, where a sandbar was turned into an air base and where rats and mosquitoes shared an old and rundown resort hotel with the garrison. At Grande Isle, the mosquitoes attacked in formation, with fighters and light bombers coming in first to soften up the human targets for the big boys.

"Fighting Nine's" two seashell strips were too short for comfort and on several occasions pilots who ran out of runway found themselves bathing in the Gulf. The base proper consisted mainly of a swamp with a shell road crossing it, and most of the area from the high swamp grass to the edge of the Gulf was a sand beach. The dilapidated hotel sat within twenty yards of the water, with the decaying wreckage of a pirate ship nearby to add further color to the already picturesque scene. The first improvised hangar was in harmony with the general pattern, consisting merely of canvas draped over a telephone pole.

The Creole natives of the region all spoke French and were predominantly fishermen. Descendants of Jean Lafitte and his men, they had lived in peace and harmony on the island for over 150 years. The war seemed far away to these placid, kindly people—and yet their sons were scattered from the Aleutians to Iran. The shrimp season, which runs from August through to January, was the main topic of conversation and the main source of income for the people of Grand Isle. Many of the Creole abandoned their fishing, lucrative as it was, to help put the base in shape, service airplanes, and become guards.

The mechanics at Grande Isle worked for months in the open without shelter from mosquitoes or the driving sand. From early morning until far into the night, with flashlights for illumination and a driftwood fire for heat, they bent over the planes. When necessary, they manufactured exhaust stacks out of oil drums, made baffles from an old Coca-Cola sign, and rigged antenna weights from toilet plungers. And when their begged and borrowed tools

weren't sufficient, they turned out their own from flatirons and plumbing pipe. Cannibalism was a popular and necessary practice among Captain Henry Muntz' crew. Wings and tail surfaces and engine parts were freely interchanged, and there was the case of a Waco that emerged with a different NC number on each wing. Wild cattle, which had to be dissuaded from eating the fabric off the planes, added to the manifold woes of Grande Isle's mechanics.

The coastal patrol not only uncovered some great innovators among the mechanics, it also spotlighted some remarkable gadgeteers. Lieutenant John Lindsay of the Falmouth engineering staff was one of these. His major contribution was a gear, made of odd scraps of wood and metal, for launching a rubber life-raft from any type of patrol plane to men down at sea. A pull at the rope and the raft would drop. On the way down, it would automatically inflate with air, enabling it to float immediately on hitting the water. Lindsay also developed an emergency kit to be attached to life-rafts. Its outer wrapping was completely waterproofed and its contents included everything from a fish-line and pork-rind bait to a whistle which could be used to signal rescue craft in fog or rain.

Frequent and periodic inspections by Colonel Blee, deputy commander of Civil Air Patrol, kept the coastal bases on their military toes. The ruddy-cheeked, enthusiastic operations and training officer from Washington owned a pair of sharp blue eyes that could see behind corners. But Blee's primary purpose in flying to the bases on his unannounced visits was not to probe into dusty corners and hand out gigs. He came when the going was roughest—when a unit had suffered losses or when the weather was at its worst or when a new kind of mission was being undertaken. He made it a point to fly with the men in good weather and bad, and went on a series of night missions sent out by several of the Northern bases for the purpose of tracking down mysterious signals observed at sea off remote stretches of the coast. Coordinator of all CAP active-duty operations, the colonel—more than any other person—was the man who held the coastal patrol together and molded it into an efficient machine that the military learned to respect.

The first arrivals at the Bar Harbor base—the northern-most of the 21 coastal patrol stations—found ample space and the magnificent view for which Maine is noted. But there wasn't much else they could say for the site. The entire layout consisted of one hangar with almost nothing in it, one canteen with no food on its shelves, and a small, nondescript shack used by the guards. There was plenty of room for improvement, and soon the building began. In due time, an administration building, an operations-intelligence building, and several other structures took shape.

Along with the construction work, which every member had a hand in, personnel attended daily classes in navigation and code to prepare for the forthcoming rambles over the whitecaps of the Atlantic. Regular hours of duty were an unheard-of luxury during those early days. A pilot dug a few yards of ditch, helped shingle a roof, attended class, flew a patrol, and then grabbed a sandwich and a cup of coffee. If the guards were short-handed, he stood guard. In between times, he very probably carried wood for the fires. Pilots in name only!

The canteen problem was solved by Red Cross volunteers from neighboring towns, as it was at most bases. The women took charge of the preparation and serving of meals and lunches, arriving at the base each morning with a trailer packed with homecooked food.

Early one December morning, all hands were alerted. "Come to the base at once," the message instructed. On arriving at the field, the personnel of Base 20 found that their cherished buildings, on which they had counted every shingle, every nail, were a mass of smoking ruins. For a little while, the men felt desperately weary. But their commanding officer, Major Jim King of Milwaukee, was no to be beaten by a fire. Before that dismal day was over, the smoking timbers had been dragged to a snowbank, the ground cleared, and

plans were underway for the erection of new buildings. The pilot-carpenters and observer-painters pitched in and started to rebuild the base. So impressed with this spirit of determination were the townspeople of Bar Harbor and nearby Ellsworth that they collected \$500 to help.

Patrol Force 19 at Portland, commanded by Major Milton Smith, shared the northern blasts that rattled the windows at Bar Harbor. The Portland unit on several occasions helped to save the lives of fishermen stranded at sea—and the nine-man Coast Guard garrison on Boone Island will never forget how the CAP patrol planes delivered their Sunday papers, dropping the precious reading supply plunk in their laps. While Bar Harbor had lost two men in the ocean, Portland finished without either an overwater engine failure or a fatality—a tremendous safety record for a base that had to cope with the long Maine winter.

The Suffolk base, whose patrols met Wynant Farr's Atlantic City planes off Red Bank, New Jersey, and contacted Base 18's planes off Block Island, escorted coastwise convoys leaving New York Harbor in the direction of Boston. Major Ralph Earle's boys didn't see many subs, but they did pick up wreckage and kept a close lookout for attempts to send Nazi spies ashore from surfaced U-boats. The Nazis' habit of surfacing close to Long Island at night to charge their batteries made vigilance doubly important. One sub spotted by a CAP patrol further south had an imitation seagull mounted on the periscope—a ruse detected when the observer noticed that water washed over it from time to time.

Fog was a constant menace in the Long Island sector. To help offset this danger, a Link Trainer loaned by the state of Pennsylvania was used for instrument training by pilots from both the Suffolk and Falmouth bases. A minimum of 40 hours of Link training was required—a factor which undoubtedly helped Major Earle's two bases escape without any fatalities.

Although no men were lost at Suffolk, there were some narrow escapes. The first "ducks" were Lieutenants Bob Ricksen and Richard Lancaster, who went down off Block Island in a Stinson Voyager. Lancaster, the observer, was stunned by the impact and remained in the plane. Ricksen got out safely, noticed that he was alone, and dived down just in time to extricate his observer from the sinking plane. Lieutenants Bill Hall and "Ace" Reilly, the crew of the sister ship, directed the rescue expertly. As a result, a fishing boat picked up the pair in the water in a matter of minutes.

Not all the action involving coastal patrol fliers took place on overwater missions. When two Army P-47's collided near the Suffolk airport during a mock dogfight, the planes locked wings and crashed in a patch of scrub oak not far from the field. The pilots hit the silk and came down somewhere in the brush, but couldn't be located. CAP planes were contacted and the manhunt started.

When the call for help came, Major Ralph Earle and his operations officer, Captain George "Buck" Miller, were in a Fairchild 24 off Montauk on patrol, but they turned back and joined the search. As they circled the woods where the planes had crashed, Earle caught a glimpse of white parachute not far from the burning wreckage. A fire started by the gasoline explosion was eating its way through the underbrush toward the pilot, who was evidently injured.

Major Earle radioed the base and gave directions to CAP and Army personnel who rushed into the scrub and carried the injured flier to safety. The other Army man, meanwhile, had been picked up several miles away and was in good condition.

Patrol duty took on an international flavor at Brownsville during the spring of 1943. On one occasion, CAP planes flew 150 miles into Mexican waters to pick up an important ship which was plying northward. Apparently its cargo was a vital one—important enough so that a special escort was considered necessary to protect it from the submarines that still lurked in the Caribbean and the Gulf. The Gulf Sea Frontier Command handed the convoy

detail to CAP, meanwhile making it quite plain to coastal patrol personnel that neither the War or State Departments could give them any ironclad promise of protection, or any assurance that they would not be interned by Mexican officials.

Headed by Base Commander Ben McGlashan and Captain Henry King, the CAP fliers climbed into civilian clothes and commenced their unorthodox mission. When they made contact with the ship to be guarded, they were almost immediately joined by three Mexican aircraft. Several hours later, their convoy job completed, they set down at Vera Cruz to refuel and were promptly surrounded by soldiers and policemen. McGlashan, King, and company were making no progress whatsoever and were beginning to envision a long internment in the land of the hot tamales when the three Mexican planes they had seen while on convoy duty came down on the field. The pilots sided with the Yankee fliers and, by dint of much talking and gesticulating, squared the situation outside of military or diplomatic channels. A short time later, the State Department received clearance for CAP aircraft to convoy ships in Mexican waters.

The gallant old Sikorsky amphibian, "The Spirit of Africa," which had carried Osa and Martin Johnson safely over 60,000 miles of jungles and mountains during their explorations of the dark Continent, served as the rescue ship for Base 10 at Beaumont, Texas, and for several months was in daily use. Normally it went on routine patrols. Equipped with powerful radio apparatus, it was instantly available for rescue work.

On Armistice Day, 1942, when waves were running 20 to 30 feet high in the Gulf, a faint radio voice, heard over the heavy static, electrified the communications operator at Base 10 with a terse: "We are going in . . ." then silence. A few seconds later came this message from the companion flight. "Our sister ship is down."

Major George E. Haddaway, the youthful base commander, recognized the first voice. It belonged to First Lieutenant Alfred Koym, the observer, who was a partial cripple. That morning when he went on patrol, he had mentioned, half jokingly, that he had a funny feeling—then turned his valuables in at the control room. Jim Taylor, the pilot, had remarked to his wife a day or two before, "You know, honey, I shouldn't be doing this. It's too dangerous for a man with a family."

The Martin Johnson ship spread its stubby wings immediately. The beloved "duck" that had borne the Johnsons over Africa's steaming jungles and snow-capped Kenya and Kilimanjaro, had never flown better than it did that day—on its last mission.

Guided by radio and by the sister ship, which was circling over the crash site, "The Spirit of Africa" landed on the water a few yards from the crash victims. It was the next thing to suicide to try to set the Sikorsky down in those mountainous waves, but the duck's pilot showed no hesitation. A wing float was smashed in the tough landing and the amphib nearly capsized.

The observer in the Sikorsky crawled out on the wing in order to direct the rescue. But when the pilot cut the engine to hear the directions, he was unable to start again. And now all four men were in serious danger.

Navy PBYs flew out and circled over the disabled Sikorsky and the wave-battered crash survivors, but decided not to attempt a landing in the heavy seas. Four hours later a Coast Guard boat manned by volunteers succeeded in picking up the floating men and attempted to pull the Sikorsky to shore. But "The Spirit of Africa" had flown its last adventure. It sank while being towed.

Lieutenants Taylor and Koym died a few hours after being picked up. The beating they had taken in the water was too much for them. Five days later, Base 10 received a second stunning blow. Another patrol ship went down and two more men were lost—Lieutenants John H. Dean, Jr., and Robert D. Ward. This time there was no "Spirit of Africa" to attempt the rescue.

Patrol Force 13, which opened proceedings at the Peter Knight Airport in Tampa Bay, with part of a modernistic terminal building as its headquarters, was used principally to spot the wreckage of Army and Navy planes that flew out of the countless bases in that area. Every day the sky was filled with ships practicing strafing, bombing, and dogfighting—and quite a few of them fell into the Gulf. So the coastal patrol dropped flotation gear to survivors and marked position for the crash-boats.

When it became apparent that Tampa was too far north for efficient operation of the base, with the northern patrol a short one and the southern run entirely too long, the unit was uprooted from its emerald island in Tampa Bay and shifted to an ordinary municipal port at Sarasota.

One of the favorite stories from Pascagoula, Mississippi, concerns the forced landing made at dusk by Pilot Mel Holderness and Observer J. D. Hammett of Detroit on remote Chandelieu Island when their Fairchild developed engine trouble. Holderness, who now works at the Detroit Municipal Airport, set the plane down softly on the sandy beach—only to wash out the landing gear on a submerged tie. The stranded pair built a fire as darkness blotted out their strange surroundings. Dipping into their emergency kits, they hauled out rations, matches, and flashlights. With the latter, they began sending S.O.S. signals oceanward, hoping that a ship might catch the message. Around 9 p.m. an answering blinker winked encouragement. A Coast Guard cutter was on its way to Chandelieu to pick them up. The gobs attempted to hit the beach around midnight, but the surf was too rough and the landing was made several hours later on the leeward side of the island. The dawn patrol was on the line when Holderness and Hammett reached the mainland.

That was the first chapter of the Chandelieu story. The second began when four of the more rugged characters in the Base 11 aggregation—Charley Whittaker, Marion Parkinson, Earle Steunkel, and “Pop” Hester—flew over to the island, pancaking a second plane on the beach and damaging the undercarriage in doing so. The men roughed it on the sandy strip for eight days, sleeping in the open and eating canned rations. During their stay, they patched up both planes with the aid of a handful of tools, an orange crate, and other improvised materials. Their only companions were the wild boars that ran through the scrubby underbrush and forced them to keep pistols handy by day and blazing fires kindled at night. One of the razor-tusked porkers turned up in a barbecued condition after challenging the CAP’s right to trespass. The expedition to Chandelieu came to a successful conclusion when the two stalled planes were flown off the beach.

The men and women who served on coastal patrol duty at Corpus Christi remember the tense day late in August of that first summer when an urgent teletype message ordered that all planes be evacuated to San Antonio because a hurricane was moving in on Corpus. As the eleven ships climbed into a leaden sky, the business of covering equipment with heavy tarpaulins and of fortifying doors and windows in advance of the gale was carried out with quite efficiency. The hurricane *did* strike Corpus Christi later that day—but it dealt San Antonio a much heavier blow, causing the loss of two of Base 15’s planes, a Stinson and a Fairchild.

Later, to take care of the heavy convoy duty called for in the area, more planes were brought in until 30 were assigned. Their names were unusual, to say the least; “Pandemonium,” “The Flying Fortress,” “Red Rita,” “The White Elephant,” and “The Flying Snuffbox”—those are some samples.

“Take Me Back To Tulsa” was a money-making jukebox record at Corpus Christi’s canteen, which was known as “Fly Inn.” That particular number was played to death by the many Oklahomans in the Base 15 contingent. The canteen was a favorite off-duty hangout—a place where lunches were always hilarious and much talk mingled with the rattle of the dishes. Even through the sweltering summer weather, thick cups of black coffee were

drunk all through the day and into the night.

Pets of every description found their way to the coastal patrol bases. There were dogs and cats, a canary or two, some pedigreed sand-crabs, and at least one profane and outspoken parrot. But, of all the mascots, probably the most famous was Beaumont's coal-black feline, "Three Point," who had 50 hours officially logged time over the drink before he met an untimely death from ground-glass poisoning. The black cat was not looked on as a jinx by Base 10 fliers. To the contrary, his presence in a plane was regarded as a good-luck charm. As flights were preparing to leave, "Three Point" would attach himself to one of his favorite pilots, who never failed to be among the best and most conservative of the lot.

The youngest coastal patrol flier to die was nineteen-year-old Guy Cherry of Kinston, North Carolina, who flew for Major Frank E. Dawson out of Base 21 at Beaufort. Young as he was, Cherry was a crackerjack pilot and extremely popular with the members of the garrison.

The base log for November 16, 1942, states the tragic story: "Lieutenant Guy Cherry died today. We were short of planes and doing a lot of convoy work. When it became necessary to send relief planes down to the convoy, Lieutenant Cherry as pilot and Lieutenant George Grove as observer were assigned to the Major's personal plane, along with a sister ship, to go on escort. The 'pickle machine' had been test-flown for a couple of hours the day before and it was in perfect shape as far as human judgment could ascertain. The planes made contact with the mission and all was well until we got the terse 'Mayday' at 1040 and the information that the motor of the machine piloted by Cherry had failed and that the ship was headed for the beach and losing altitude fast."

In making the prescribed turns around the convoy, the two patrol planes had become separated and the sister ship failed to see Cherry's plane go down. Due to radio interference and some slight miscalculations in navigation, Cherry and Grove weren't located until 1415 that day, although the Navy, Coast Guard, and Marines were helping in the search. CAP planes finally spotted the two men floating in the water fifteen miles off Cape Fear Lighthouse.

"A Navy PBY was sent to the scene but reported that it was too rough for a water landing," the log continues. "Lieutenants Cherry and Grove were finally picked up about dark. Cherry had been dead for some time. Grove had strapped the youth's body to his own to keep him afloat. It was a terrible shock to us all—the first time we had to face death since being together. And none was dearer to all of us than Guy Cherry."

Many of the crews that flew the patrols over the Atlantic and the Gulf never saw a submarine. In later months, as a matter of fact, they rarely observed any signs of their presence. For most coastal patrolmen, the four- and five-hour scouting and convoy missions were uneventful interludes that soon became monotonous. The missions would have been much easier to take if there had been more action. In the months when coastal patrol was young and the subs were plentiful, the excitement of the chase and the knowledge that patrol sweeps were needed made the work and the risks seem worth while. But when the crews went out for weeks at a time and failed to see evidence of any submarine activity, they grew restless and found themselves wondering why they should risk their necks in weather so dirty that not even the gulls attempted to fly in it. Rehoboth's base commander, Major Hugh Sharp, used to tell his men: "We're like insurance. As long as the enemy knows we're out there, they won't come in." That explanation helped for a time, but it lost most of its punch before the stormswept winter was over.

For some time they knew it would come. By midsummer of 1943, the immediate offshore sea lanes were virtually free of the U-boats that had threatened to bottle up the harbors with shipping only a year before. A steady increase in subchasers, blimps, Coast Guard patrol boats, and Army and Navy bombers, assisted by constant and effective CAP patrols, made

the offshore waters intensely unhealthy for the Nazis. And now the Navy was strong enough to handle the entire job without any help from the Air Force. In offshore waters, the CAP helped quell the fears of tanker and freighter crews for torpedoes, shattering explosions, and searing oil and gasoline fires.

When the notice came in July that CAP coastal patrols could be discontinued at sundown on August 31, wisecracks were made about going back to jobs in the cotton patches and the crossroads grocery. But the humor had a hollow ring and there was a catch in many a throat. The thought of leaving good friends and—in the case of the older men—of having to return to humdrum civilian life with the war still on was hard to take. As the time grew short, eyes long accustomed to searching the water for possible enemy craft, for persons or ships in distress, watched as sharply as ever as the old familiar landmarks paraded beneath them. Rumors went the rounds of new duties for the coastal patrol personnel. At Suffolk alone, predictions had CAP planes and pilots going to Mexico, Brazil, Alaska, England, and Africa.

The final review and the lowering of the colors at sundown of August 31 was a memorable moment for men and women who had served along the coast—some for as long as eighteen months. And now the team was to be disbanded. For many, active-duty flying was finished.

CAP pilots and observers had flown more than 24,000,000 miles over the ocean, had spotted 173 submarines, had dropped bombs or depth charges against 57, and were officially credited with sinking or damaging at least two, in addition to those sunk by Army or Navy aircraft called in for the kill by CAP radios. The overwater fliers had also located 363 survivors of ship sinkings or aircraft crashes at sea. They had reported 91 vessels in distress and seventeen floating mines, some of them in the paths of troopships.

These accomplishments were paid for with the lives of 26 coastal patrol members, most of them victims of forced landings in the ocean. Seven others were seriously injured and 90 CAP planes were lost at sea or damaged beyond repair.

Speaking for the Navy, Admiral Ernest J. King, commander in chief of the United States Fleet, wrote the following to General George C. Marshall, Chief of the Staff of the United States Army: "I request that you express to them [the CAP coastal patrol volunteers] a 'well done' for their enthusiastic, loyal and constant cooperation in combating the submarine menace, patrolling our coastline and assisting in the locating of survivors and ships in distress."

Admiral Adolphus Andrews, commander of the Eastern Sea Frontier, with whom the Civil Air Patrol had worked from the beginning of their duty along the coast, was profuse in his praise of the civilian airmen who had helped to police the sea lanes:

"Your unit had rendered invaluable services to this command in fulfillment of its war mission of protecting shipping and combating the submarine menace. . . . In the performance of these tasks there has been displayed a skill, energy, resourcefulness, and disregard for danger which are in the highest tradition of the American armed forces. Now on your departure from the Eastern Sea Frontier I extend to you my thanks for your cooperation and wish you all the greatest success in your next assignments. Well done!"

The greatest tribute of all came from General Henry H. Arnold, Commanding General of the Air Forces, who reviewed the contribution of the active-duty volunteers in these words:

"The Civil Air Patrol grew out of the urgency of the situation. The CAP was set up and went into operation almost overnight. It patrolled our shores and performed its anti-submarine work at a time of almost desperate national crisis. If it had done nothing beyond that, the Civil Air Patrol would have earned an honorable place in the history of American air power."

A final evaluation of CAP's coastal patrol came many months later—and from the other side of the Atlantic. After the German surrender, one of Hitler's high-ranking naval officers

BORDER SENTINELS

A new chapter in the life of the Civil Air Patrol began when the Southern Liaison Patrol was established along the Mexican border. This territory could have been an open gateway for scores of agents, saboteurs, and currency smugglers if left half-guarded during the war years. With fewer border patrolmen available for duty along the wild mesquite country of southern Texas, the danger of a fifth-column invasion from the south was very real. Cracks in the protective wall had to be cemented, and vigilance increased a hundred-fold. This was exceedingly difficult. The draft was draining available manpower, and Army units were being moved out for pressing combat duties. Replacements of trained and experienced men in this work were too few to make up for losses and to shoulder the additional burden.

To meet this problem and to fill the gaps in their counter-espionage network, two steps were taken by United States intelligence authorities. One was to enlist the aid of civilians living in the border area to act as informants. The second was the introduction of a dawn-to-dusk aerial patrol of the border from Brownsville, Texas, to Douglas, Arizona—a distance of more than 1,000 miles under the jurisdiction of the Southern Defense Command. Exemplifying the need for this expansion of law-enforcement facilities were the reports of increased Axis activity in Mexico and along the border that filtered into Army intelligence headquarters following the attack on Pearl Harbor.

On December 13, 1941, less than one week after Japan's attack, an unidentified aircraft was reported seen landing near the little town of McNary, Texas. It was alleged to have come from Mexico. Patrol officers were alerted and sent out to investigate. No trace or evidence of a plane was found. False alarm? Perhaps.

Six months later, in June, an owner of a tungsten mine near Arivaca, Texas, reported he had seen one or more airplanes flying at intervals from some point south of the border to a point north, possibly in the Phoenix, Arizona, area. This man strongly suspected that these flights were connected with the movement of enemy agents into the United States.

Axis agents were at work—no question of that. If there were no fires, there was at least plenty of smoke. Every possible resource for the protection of the southern border had to be utilized. The "aerial eye" to maintain this protection became the Civil Air Patrol with the establishment of a new CAP outfit—the Southern Liaison Patrol.

Approval for this new wartime mission of the private plane was given by AAF Headquarters in July 1942, in response to a request for CAP help in patrolling the border, by Brigadier General Walter Krueger, commander of the Southern Defense Command. General Krueger, who later won fame as the resourceful leader of the Sixth Army in the South Pacific, stressed the need for this aid because his aerial patrol unit, the 120th Observation Squadron, had been moved elsewhere to prepare for combat reconnaissance.

The general's request and its subsequent approval marked the beginning of a two-month period of planning and preparation in which all arrangements were made toward the activation of the necessary CAP units on the Mexican border. National CAP Headquarters immediately started mustering all the strength and resources of the organization for this new venture.

Colonel Harry H. Blee, operations officer for CAP, called on Major (now Colonel) Harry

K. Coffey of Portland, Oregon, to establish the new patrol. Major Coffey, long a leading figure in aviation circles (he first soloed in 1914 in a home-made plane which he constructed) threw the full weight of time, effort, and over 30 years' experience into the assigned task.

His first step after arriving in Texas was to make a complete aerial tour of the of the Rio Grande country. He explored the territory, flight-checking emergency landing strips, noting the terrain and the refueling capacities of various bases, and securing the cooperation of all the local law-enforcement agencies. He acquired complete data on people to contact for information, set up communication procedures, and established close liaison with federal counter-espionage authorities, coordinating these arrangements with Brigadier General Harry Johnson, commander of the Southern Land Frontier, a subordinate division of the Southern Defense Command.

The major submitted a report recommending that the CAP utilize two main bases, Laredo and El Paso; a sub-base, Del Rio; a reconnaissance base, Marfa; along with refueling facilities at Brownsville for the Laredo unit and at Douglas for the El Paso contingent.

National Headquarters, upon receipt of military approval of Major Coffey's report, immediately began negotiations with the local military commanders for the bases and sub-bases out of which the patrol would operate. Tentative tables or organization were adopted, and a per-diem schedule similar to that worked out for the coastal patrol was set up.

Plane owners and pilots known to be available were contacted. Most of them lived on the West Coast where private flying was drastically curtailed because of Western Defense Zone restrictions. Volunteers for the mission in the Lone Star State jumped at the opportunity to fly again.

Not only were planes needed, but also all related equipment such as mobile trailer houses, station wagons, mobile power units, and radio transmitters and receivers. Priorities were in effect at that time, making it impossible to procure new equipment of that sort, since it was contracted for by the armed forces.

Lieutenant Bruce Srievers of Portland, Oregon, was appointed communications officer for Southern Liaison Patrol No.1 at Laredo, and when he arrived at that base he brought along his own "ham" set for radio operation. Office equipment, adding machines, typewriters, and even trailers to use as offices were some of the contributions of others in the unit.

When Major Charles B. Rich, former secret-service agent from Pasadena, California, arrived to take command of Southern Liaison Patrol No. 2 at El Paso, there was only one airplane fit to fly. This belonged to Captain J. Wesley Smith of Los Angeles who had been in temporary charge of the outfit. A few days later, Lieutenant Carl J. Turner, unit operations officer, came with his Beechcraft and these two planes constituted the entire aircraft strength for a week before more ships and pilots arrived.

A big problem was housing. El Paso had been overcrowded for months, and it was only after much scrounging around that Captain Rich was able to contract for the Alameda Auto Court. It was several months before the men became permanently located in houses and apartments throughout the city.

Maintenance shops were not sufficiently equipped at either base. That the Southern Liaison Patrol was able to maintain daily patrols over the vast border area was a tribute to the ingenuity of the mechanics. Heating facilities and proper tools were totally absent, and ground crews were constantly improvising, devising, and even inventing in order to keep 'em flying.

With the longer patrol missions scheduled out of El Paso— the El Paso-Del Rio run being 430 miles over rough, rocky, barren terrain—the larger Wacos, Beechcrafts, and Stinson Reliants were assigned to the west. For the shorter runs out of Laredo, the smaller Lockheed Orions, Stinson Voyagers, and similar types were employed.

The communications personnel of the Southern Liaison Patrol set up and maintained an excellent two-way radio system which afforded patrol planes direct contact with their home bases and with mobile stations carried in scout cars. In addition, teletype circuits connected patrol bases with National Headquarters and with intelligence centers of the Southern Defense Command. These communications facilities insured coordinated operations and quick follow-through action.

Light planes were ideal for border patrol. Pilots hedge-hopped along creek beds and ravines, enabling observers to comb the brush on the banks for fugitives who might be hiding during daylight hours. When automobiles were spotted careening down obscure back roads toward the International Boundary, CAP crews sometimes flew low enough to read the license plates. On one occasion, an observer radioed a description of the two occupants of a suspicious-looking car, complete down to the color of shirts and ties. They were captured at the border and found to be enemy agents. Another time, the observation of automobile tracks and other signs of activity around a deserted hay barn on an abandoned ranch led to the discovery of a radio station which was being operated by enemy agents.

This type of information, relayed to ground units who then moved to intercept questionable parties, gave would-be border-crashers a bad time. Evasion of police agencies on the ground was one thing, but escaping observation from the air was quite another—as those who attempted to traffic illegally between the United States and Mexico frequently discovered.

Sometimes CAP crews and ground-spotters caught glimpses of fast, high-flying planes winging across the border. The light CAP aircraft couldn't hope to intercept them, but they could radio position and heading of these planes to military authorities and hope for the best.

Emphasizing the fact that the role of the Southern Liaison Patrol did not include the actual arrest of suspicious persons crossing the border, that the SLP existed only to observe and report, Major Charles B. Rich, base commander at El Paso, stated, "Our tour of duty on the border was made difficult at times because we were never able to see the results of our work. We were rarely told whether our observations involved the enemy or not."

In order to prevent any accurate predictions by "interested parties" as to when a patrol plane would be over a given area, the SLP staggered patrols throughout the day—each day. The little airplanes would never pass over a given point at the same time or at the same altitude, and their comings and goings were heralded only by the exhaust of their engines.

Once in a while, however, the putt-putt stopped while a plane was in the air, and that meant a forced landing somewhere. It happened to Lieutenant Arnold Fredrickson, a native of Kalispel, Montana, and Flight Officer Jim Whipple of Wenatchee, Washington, flying a mission out of Laredo. The engine of their Fairchild 24 picked an inopportune moment—they were less than 100 feet off the ground over a remote section of Texas, just as darkness was falling. But luck was with them; they landed the plane safely after only a few jarring bumps.

Fredrickson, accustomed to rough and rugged Montana territory, thought nothing of being in wild country until he started to get out of his plane.

"Hold it, Arnold!" cried his observer, pointing to the ground.

Fredrickson lifted his foot—just in time. He was about to step on one of the famed Texas rattlesnakes coiled neatly on the ground beside the airplane. It was some time before the pilot caught his breath.

Whipple glanced out the window of the ship. "Looks like we have some more company. Take a gander at that."

About 50 feet away, a vicious-looking animal was giving them the once-over. And as the lieutenant watched, a few more of the same breed appeared, evidently having been attracted

by the noise of the landing. "What the hell are they?" he asked.

"They, my friend, are just about as tough customers as you'll ever see," answered his companion. "They're javelina hogs. They'll attack a man for no reason at all. See those tusks? They're so sharp they can slice a man's leg off with one swipe."

Fredrickson winced. It was really getting dark now and neither man had any inclination to expose himself to rattlers and javelina in the daytime—let alone at night. "See if you can get the base by radio and tell 'em where we are," Fredrickson said.

Whipple contacted the base, explained the situation, received the answer, and turned to his pilot. "Well, Arnold, make yourself comfortable. We're here for the night. Base says they won't be able to get to us in the station wagon until morning. It seems we're a little too far away. They'll bring a mechanic with 'em."

The pilot let loose a stream of profanity in his nasal Montana twang. Feeling better after his outburst, he stretched his long legs as far as the cramped cabin space would allow, and fell asleep.

Not so for his observer. Having heard too many lurid tales about the hogs, snakes, and jaguars that roam Texas, he spent the rest of the night on guard, talking himself out of lighting a cigarette. He had heard that animals are attracted by fire.

After a few months at the Laredo Army Base, the SLP moved to nearby Fort McIntosh, an old World War 1 base. The AAF had instituted an aerial gunnery school at the air base and, with the increase in military operations, it became hazardous for the little CAP planes to be flitting around in the same area with the Army AT-6s. After some close shaves on take-offs and landings, the patrol pilots were happy to withdraw to Fort McIntosh.

That is, they were happy until they got a good look at their new runway. It was an ancient parade ground with all the characteristics of an obstacle course. At one end stood an old barracks building, and at the other a high wall—a setup hardly conducive to an airman's well-being. One of the pilots taking his first look at it, moaned, "There goes my white beard."

Major Jack R. Moore of Portland, Oregon, Laredo base commander, immediately asked for and received permission from the Southern Land Frontier to knock out enough of the wall to allow planes to move through it. It was fortunate that a city street stretched beyond the break in the wall. On more than one occasion, it was necessary to use part of this road as an extension of the runway when heavily loaded patrol planes took off.

Personnel also said goodbye to GI tents at Fort McIntosh when the unit leased an auto-camp for them. The administration office was installed in a wooden barracks, but supply and maintenance facilities remained housed under Army canvas. Perhaps the biggest lift to morale, though, came after the building of the outfit's own mess hall. The members hired a Mexican chef who knew his tamales, and the CAP mess became so popular that Air Force officers from Laredo came to be steady customers.

The Southern Liaison Patrol was no different from any other air operation when it came to grips with the weatherman. Since its main function was one of observation, the success of its work depended on a clear atmosphere and good visibility. In most instances flights were canceled when bad weather set in. But sometimes the little planes became victims of sudden squalls and thunderstorms that had them scurrying for the nearest landing field. Despite all the benefits derived from the extensive Army Weather Service provided in the border area, the Laredo squadron was forcefully reminded that the Army can't call all its shots.

One day, about two months after operations had begun, Lieutenant William E. Lees of Ontario, Oregon, base operations officer, reported to Major Moore with a message. "Sir, I believe we're in for some tough weather in the next twenty-four hours. I've just received word that an old-fashioned Texas cyclone is headed this way."

Major Moore frowned. "A strong wind could make matchsticks out of our ships. Any

idea of the force of this blow, Lieutenant?"

"Velocities up to 100 miles an hour have been reported."

"In that case, we better get the planes out of here or our operations will become just a memory." Major Moore hurried to the phone. In a few moments he was talking to AAF Headquarters at San Antonio. "Colonel Crane? We're in the path of a cyclone and have to get our planes off the field or we'll be left with a lot of pilots with no ships. Would it be possible for us to fly them up there until this thing blows over? . . . Right, Thank you, sir."

A few hours later, 30 SLP planes landed on the Army Air Base at San Antonio, taxied to an assigned parking area, and were secured for the night under military guard. Their pilots, relieved to be out of the cyclone's path, prepared to enjoy some of the comforts afforded by the officers' club.

That evening most of the CAP men were sitting around in the club delighting in their new-found luxury when an Army Lieutenant rushed in. "We've been crossed up," he announced. "The storm's changed its course—it'll be here in half an hour."

"C'mon," yelled Lieutenant Ralph E. Perin of Eugene, Oregon, "let's try and save our babies."

There was a mad scramble for coats, and as the men streamed out of the club toward the flight line, the wind was already beginning to whip sharply across the field. On the flight line, AAF ground crewmen, fighting against time and the steadily rising wind, were trying to tie down the little planes before the full fury of the storm hit. Armed with stakes, ropes, hammers, hooks and covers for wings and engines, they were working frantically to complete the job.

A leather-necked, bull-voiced sergeant was in charge. "Give us a hand here," he bel-lowed, as the pilots came running up. "Grab those picks and shovels and dig holes for the landin' gear. Hop to it! Whatsa matter over there? Where d'ya think ya are—home? Put some milk into drivin' those stakes. We ain't got all night."

The men sweated and grunted and groaned and cursed as they pulled the ropes tight, hammered the stakes into the ground, and tied down the covers. Their hands were raw. The dust swirled into their eyes and mouths, Coughing and choking, they bent determinedly to their tasks.

A few minutes later, the sergeant squinted toward the runway. A solid wall of devilish, whirling sand was bearing down upon them.

"Here it comes, men!" he screamed above the crescendo of the onrushing gale. "Get on your horses. Head for the hangar!"

The men dropped everything and ran. Speed records were broken as they dashed for the nearest shelter—an Army hangar now completely filled with military aircraft. The last man just squeezed through the door as the lashing, slashing storm charged down and beat against the hangar walls.

One moment the little CAP planes could be seen bucking and straining against their ropes like frightened ponies, the next moment they were completely engulfed by the surging, spinning maelstrom. The men, looking through the windows of the hangar, might just as well have been staring at a bare, blank wall. They could see nothing.

For fifteen minutes the storm raged, and then, as if some giant boot had crushed it under-foot, the wind slackened. What had been one gigantic whirlwind had degenerated into scattered and sporadic swirls of dust.

The work-weary and begrimed group emerged from the hangar to survey the damage. Had their efforts been in vain? Had the force of the gale been too much for the sturdy little patrol ships?

"Oh, brother! Take a look at that mess," said Lieutenant Archie Gill of Spokane, pointing to his right.

Scattered at random over the parking apron were airplane parts—a wing here, an engine there. Broken struts, pieces of ripped fabric, loose propellers, and smashed instruments told a mute story of the storm's devastation.

"Yes, but do you see what I see?" cried a soldier. "We didn't do so bad at that. Most of your planes are still in one piece."

He was right. When the final check of the damage was made, only five of the 30 CAP ships had succumbed to the twisting winds. The remaining 25 had managed to ride out the storm and were in excellent shape.

The sergeant summed up the feeling of everyone when he remarked, "We were damned lucky."

Laredo? Don't mention that name. The Patrol's home base escaped the storm entirely.

El Paso was not without its weather troubles, too. No cyclones appeared, but high winds were the rule rather than the exception. Planes not in flight always had to be tied down and covered, because no one knew at what hour a sudden gale might spring up. In only a matter of minutes, the wind velocity could jump from ten to 70 miles an hour, and the securing of airplanes was a continual "must."

Perhaps the greatest single factor in making a success of the El Paso base despite all their handicaps was the caliber of its personnel. They were a dogged and determined crew. The story of one of their pilots, Lieutenant George Copping, serves as an excellent example.

Major Rich, two days after taking command of the unit, was watching his men drawn up in formation for their first military drill under Lieutenant Charles Simon.

At Simon's first command of "forward march" the entire unit stepped forward with the exception of Lieutenant Copping who stood fast. The group moved off, and Copping walked over to where Major Rich was standing and saluted. "Sir, may I be excused from drill? I don't believe I can keep up with the others."

"And why not, Lieutenant?" Rich asked, suprised.

Copping said nothing. He merely rolled up his trousers. He had two artificial legs!

Major Rich stifled a gasp, "C'mon, let's go into my office."

There Lieutenant Copping told his story. The pilot explained that several years ago, while working as a lineman for the National Park Service in Yellowstone, he had suffered two frozen limbs. Gangrene infection set in, and was spreading rapidly by the time he reached a hospital. The doctors had to amputate both legs below the knee to save his life.

During the long months of recovery, Copping resolved that this handicap would not shatter his life—and it didn't. He worked long, agonizing hours learning to walk all over again until he mastered the use of his new artificial limbs.

He was now ready to resume his career. He studied navigation and won a Master Mariner's license. After seven years as master of a ship, he took up aviation when a friend sold him on the ease of flying a small airplane. Not a man for halfway measures, he became an amateur pilot, later obtained his commercial ticket, and made his living as an agent for the Taylorcraft Company. His log book showed more than 1,200 hours when he arrived in El Paso as a full-fledged pilot in the CAP.

Major Rich later praised the work of Lieutenant Copping. "During the months that followed, Copping flew better than 1,000 hours on actual patrol in all kinds of weather and under the most trying conditions, and on occasions where others wished to be excused it was he who always volunteered for the difficult or undesirable assignments."

The night of March 12, 1943, will live long in the memory of the men at El Paso. Quiet reigned on Old Biggs Field, when the stillness was shattered by the cry of "Fire!"

Men came running toward the hangar and maintenance shop as a thin, bright flame penciled toward the sky, and in a few moments the building was an inferno. Lacking fire equipment and adequate personnel, all efforts to extinguish the blaze failed, and nine much-

needed airplanes were lost beyond redemption. "This nearly wrecked our whole operation and took years off my life," said Major Rich, "but it was ultimately settled, and the plane owners were paid in full by the insurance companies."

Patrolling out of El Paso was anything but monotonous. Almost every pilot had one or more unusual stories to tell during his tour of duty in Texas. Along with their difficulties, they had their laughs, too.

One day an observer burst into the operations office and breathlessly reported, "Say, we just saw a submarine in the Rio Grande. Saw the periscope just below Johnson's ranch."

It didn't take long for him to realize that the joke was on him. After listening to his wisecracking pilot for eight hours, he had been convinced that the snag in the wide portion of the river must be a submarine headed upstream. While the crowd in the office, already tipped off by the pilot, roared with laughter, some kind soul in the office patiently explained that the river had never been navigable.

Although the squadron was forbidden to fly over Mexico, it did get permission to do so after a Navy pilot crash-landed just over the border. The pilot miraculously escaped with only a few bruises, and upon reaching the base asked to be taken along on a flight to locate his plane.

He took off with Lieutenant Franklin Bull in a Monocoupe 90, and after finding the plane they returned. The Navy man emerged with his face the color of pea-green soup. "Hell, I don't want another ride like that again. We never got over 100 feet."

When he was told that the Southern Liaison Patrol never flew over 500 feet, he looked incredulous. His only comment—"Nuts!"

The finale for the "Cactus Kids" came in April of 1944 after more than eighteen months of daily operations. During this period the CAP pilots flew 4,720 patrol missions plus 1,397 special missions, which added up to a total of 30,033 hours in the air with only two fatalities. These operations resulted in the observation and reporting of 176 suspicious aircraft and 6,874 out-of-the-ordinary activities along the border.

CHAPTER 6

BULLETS FOR BREAKFAST

After weeks of sighting on clouds and sea-gulls for lack of anything better to aim at, ack-ack gunners at Illinois' Fort Sheridan were getting fed up. But there was nothing they could do about it. The war was only four months old and Air Force planes were needed on more important fronts than Chicago. Besides, aircraft couldn't be spared for the comparatively unimportant job of giving workouts to a battalion of brand-new gunners.

Then came that morning in mid-March when a red Waco towing an improvised banner-type target flew over the guns for the first time. This was more like it. A black-haired buck sergeant patted his piece and, eyes skyward, shouted, "Come on over again, you little red baby. Come on over and I'll write my name on that kite you're hauling!"

The 225-horsepower Waco flashing the CAP insignia came back time after time. It buzzed overhead at 2,000 feet while the anti-aircraft machine guns blasted away at the trailing white banner. Gunners shot for record, using dye-colored ammunition to identify hits. Three sweating, bullet-punctuated hours later, the Waco made a final pass over the guns, dipped its wings, and cut loose the riddled target.

At the controls of the first civilian airplane ever to tow targets for the Army was an undertaker from Evanston, a lieutenant in the CAP, Frank Hlavacek. Hlavacek had been flying as a private pilot for many years and when the CAP was organized in Illinois he was one of the first to join. His hobby paid off that day in March when Major Jack Vilas, his wing commander, asked him to make that first tow-target flight.

Vilas, himself, was in the cabin behind Hlavacek handling the 1,200 feet of line. This was just one more first for Vilas in a long and varied career as an aviation enthusiast. He had learned to fly back in 1912 with the famed Glenn H. Curtiss, and had pioneered many aviation developments. Among his accomplishments, Vilas was the first to pilot a flying boat across Lake Michigan. This was in 1918, a time when such a flight hit the headlines as a death-defying feat.

The target-towing missions at Fort Sheridan continued several times weekly for a period of three months, with Hlavacek and Lieutenant Norman Scott, another old hand at the flying game, alternating on towing assignments. Again it was the case of the light civilian plane taking over when military planes were urgently needed elsewhere.

In addition to towing, however, CAP fliers flew dozens of tracking missions for dry-run sighting during this period. Any little puddle-jumper could qualify for the job, and there was always a waiting list of pilots who wanted to join the show. The usual procedure was to send over two planes at a time for an hour. At first all the talent came from the Chicago area, but later some of the down-state members got in their licks. All were volunteers. They flew their own planes and paid all expenses with the exception of gas, which the Army furnished. Base of operations was Sky Harbor, half a dozen miles from the gun batteries.

Upon completion of the maneuvers, the commanding officer at Fort Sheridan sent an enthusiastic wire to National CAP Headquarters, Stating:

"Missions were excellently flown and precisely on schedule. Wing personnel are to be highly congratulated on a superior performance."

The Civil Air Patrol's towing and tracking program got going on an organized basis late in

1942 when ten civilian pilots reported to Mitchel Field, Long Island, bringing with them an assortment of ten Cubs, Luscombes, and Taylorcrafts. With GI grease-monkeys gaping in openmouthed disbelief, the brightly painted grasshoppers taxied past giant bombers and rugged, speedy fighters to the corner of the field assigned to them.

These airmen, who hailed principally from the Eastern states and who had done every type of flying from barnstorming at county fairs to hopping prospectors to the Yukon, moved into quarters on the post and became a unit attached to the 2nd Tow-Target Squadron of the First Air Force.

They knew they were working for the Army when Colonel Douglas Johnston, commanding officer at Mitchel Field, summoned the men into his office, outlined their duties, and instructed them to familiarize themselves with every regulation and directive conceived within the Air Forces. At this same meeting Lieutenant Mason Hirsch, a World War I veteran with eighteen months of overseas duty, was selected to lead the outfit.

The next morning, before the first prop was turned, the squadron ran into trouble. It was a typical frosty Long Island day with the wind whipping unhindered across the flat landscape. The pilots were walking down to the flight line when someone shouted, "Hey, look at that!"

The men broke into a run. The strong wind had torn one of the Cubs from its moorings, and was whisking the plane across the field between rows of parked P-40s and B-17s. A little to the right or left, and the Cub would plow into a fighting ship.

"She's going straight," panted one of the pilots during their fruitless chase. "Just stay on that straight line, baby, and you won't hit a thing."

Miraculously, the Cub was blown a mile and a half without hitting anything, and when it finally careened to a stop, scarcely a scratch marred its surface.

"Whatta break!" breathed another pilot as he climbed into the plane to taxi it back to the parking area. "This thing should be a wreck after that wild jaunt. Whatta lucky break!"

The lieutenant spoke just a little too soon. He hadn't taxied more than a few hundred yards when, suddenly, he found himself flat on his back looking up at the floor of the cabin. Another gust of wind caught the ship beneath its wing and like a giant hand, flipped the little craft completely over on its back. The elements had succeeded this time. The Cub was a complete washout.

In a few days it became obvious to all hands that the prop-wash of the big military plane engines at Mitchel would be a constant threat to the CAP's featherweights. Consequently, an order from First Air Force Headquarters shifted the unit to a field of its own five miles away—a small private airport at Hicksville, Long Island.

Operations at Hicksville were carried on under the eye of Lieutenant Lyman T. Frazier of Amsterdam, New York, squadron operations officer. Frazier was tough—a soldier of the old school. His reputation as a courageous and fearless leader grew out of World War I when he was the ninth most-decorated man in the United States Army. He was within two hours of becoming a brigadier general, but his appointment fell through when that war ended, and he finally retired as a major.

The intervening years had not changed him. He commanded the respect of every man in the CAP organization—they would undertake any flight any time. Frazier, impatient with griping, halted it in his outfit by telling about a captain, a lieutenant, a sergeant, and a corporal in a World War I foxhole who shaved out of a third of a cup of coffee—in order of rank.

During this, the pioneer phase of tracking for Army gunners, most of the missions were dry-runs over plotted courses. The towing of targets for actual ack-ack fire followed later. Until a regulation prevented CAP pilots from flying below 1,000 feet, the little planes would sometimes come screaming down into the very muzzles of the guns. Lieutenant John McGee

of the Hicksville outfit did that only once, but it was enough.

McGee, a youthful, good-natured, devil-may-care Irishman, was on a dry-run mission over a battery of .50-caliber machine guns at Fort Totten, New York. He had a passenger with him this time, an Army captain whose job it was to coordinate the flight with ground operations.

After a couple of passes at 1,200 feet, the captain said, "Let's go down a little lower, Lieutenant."

McGee nodded, and the next pass was at 800.

"Hey we're still too high," the captain remarked. "Drop down some more."

"Listen, Captain," answered McGee, "we're flying too darned low now."

"I still want to give these men some practice sighting on a low-flying plane. Let's go down."

McGee's mouth became grim. "Okay, Cap, you asked for it. Hold your hat, here we go!"

The Taylorcraft plummeted out of the sky over New York Harbor and dived directly at the cluster of guns on the western shore of Long Island Sound. The gunners stared open-mouthed as the little craft raced down upon them.

This was too much for one of the men. He lost his head, and, instead of just sighting, he squeezed the trigger of his loaded gun, and McGee found himself staring into a .50-caliber in action. The bullets sprayed the little plane from stem to stern before he could pull up out of danger. They were lucky. A missing tail-wheel and a punctured fuselage were the total extent of the damage.

The lieutenant looked at his passenger. The captain, who had been so determined to dive on the guns, was a pasty white. He shook his head, "Never again."

The Irishman laughs at that story now. A former newspaper reporter, he is now a night-club operator in Philadelphia and a part-time writer for the aviation magazines.

Diving on guns was definitely not the accepted practice after that. Routine flights were kept somewhere under 10,000 feet because of the slow speed of the ships involved. Through mathematical computations, gunners calculated that the average Cub or Taylorcraft flying 80 miles per hour at 5,000 feet would compare, from a target angle, to a plane making 240 miles an hour at 15,000 feet.

The little ships could have flown much higher. Lieutenant Lou Dornbusch, a 62-year-old New York realtor, proved that point in July 1943, on a radar tracking mission over Teaneck, New Jersey. Lieutenant Dornbusch had taken up flying two years previously, and on his way over to Teaneck from Fort Totten he decided to find out just how high the little Cub coupe which he was flying could climb.

He kept going higher and higher and it kept getting colder and colder. His altimeter showed 10,000 11,000 then 12,000. His thermometer went down to 33°, 32°, then 29°. The Cub continued to climb, and by the time he hit his assigned area of flight, the altimeter needle was up to 15,100 and he was shivering in the 26-degree atmosphere. And just an hour before, the lieutenant had been sweating in the midsummer heat on the ground.

At 15,100, the sturdy Cub had hit its peak. After several minutes at that height, it dropped 100 feet, and although the lieutenant tried everything in the book, he couldn't regain that altitude. By this time, his clearance was almost expired and he had to give up and return to base.

Tracking for the searchlights was an important part of the unit's job. Because the lights could blind a man unfortunate enough to gaze into the 2,000,000-candlepower glare for even a fraction of a second, a pilot had to be able to navigate a predetermined course. To do this he depended entirely upon his instruments—all three of them: compass, altimeter, and airspeed indicator. For the rest, well he just had to know how to fly by the seat of his pants when dealing with the "flashlights," as the searchlights were soon nicknamed.

How does it feel to fly for the lights? Let Lieutenant Frazier give his reactions: "It is so bright you can read a newspaper in the cockpit. The searchlights nearest you burn a bright white. Those more distant send strong golden glows arrowing up at you. You're hemmed in, never left alone, constantly bathed in a blinding brilliance that—were you an enemy—would make you a clay pigeon for anti-aircraft guns. Then you know you want to get free of those lights. They make you feel as if you are being given the third degree. You second the motion when the pilot decides to give them the slip. He dives down, wings over, maneuvers as rapidly as he can. The lights stick. One drops off, leaps back within seconds. This is for keeps. You're caught—and you know it. And you're damn proud of it."

Captain Raoul Souliere, a veteran flier from Biddeford, Maine, momentarily forgot the rule about not looking into the lights, and the slip cost him his life. On a tracking mission offshore from Portsmouth, New Hampshire, Captain Souliere found himself caught by the merciless fingers of light. For a few minutes he maintained an even keel, looking very much like a butterfly mounted on a card. Then he went into a series of turns, spins, loops, and dives trying to dodge the long, thin beams, but never succeeding.

Two interested onlookers were watching the show from the ground. They were marveling at both the flying skill of the pilot, and the skill of the searchlight operators in keeping the aircraft within the beams.

"That boy in the plane really can fly," remarked one of the spectators as Souliere went into his acrobatics.

"You're right there," replied his companion, "but those boys on the lights are no slouches either. They haven't lost him yet."

The "battle" went on a few minutes longer. "Say, he's coming straight down now. Must have the throttle wide open. He'd better pull up pretty soon. He's awfully close to the water. Pull up! *Pull up!*"

It was a vain cry. The little Waco plunged headlong into the sea. With the cones of light turning night into day over the spot where Souliere crashed, would-be rescuers rushed to the scene in their boats. But they were too late. Both pilot and plane were lost.

Duty hours for a tracking pilot were exhausting, averaging around nine per flying day. In one month alone, June 1943, the fourteen men at Hicksville piled up more than 1,200 hours. The record for a year's operations was well over 11,000 hours.

One day, a few of the boys were standing around with Lieutenant Hirsch, chewing the fat about their work. A newcomer to the organization, who had just returned from long hours in the air, remarked wryly, "Someone must've slipped up. We have three whole hours of daylight in the mornings without a scheduled flight. Wonder how that happened?"

Lieutenant Hirsch grinned. "You're right. We'll have to do something about that."

The squadron commander was true to his word, and, in a few days, a dawn flight was initiated which neatly took care of the oversight.

The boys at Hicksville had to be a rugged lot to stand the gaff. Along with their flying, they were also expected to police the grounds, check their ships and make simple repairs, obtain priorities for equipment, and take their turn at guard duty.

The busiest man of all was Lieutenant Rick Decker, a former auto-racing driver. He was the only bona fide mechanic of the lot, and it was up to him to check and service all the ships. He had to do all the required maintenance practically on the run—for the rigid schedule demanded an almost continual use of the available planes. When he had extra time, which was seldom, Decker flew missions with the rest of the unit.

Probably the most unique job undertaken by Decker was in answer to a rush call from the authorities at Queens College on Long Island. It seemed that the irrepressible John McGee made a forced landing on the college football field—right between the goal-posts.

When Decker arrived, the entire student body was grouped around the little plane, and an

enterprising photographer on the school paper was busily snapping pictures recording for posterity this historic interlude in academic life.

For a minute, Decker thought this was just another McGee gag—especially when he sighted the pilot in the center of an admiring group of co-eds. But a quick check of the engine dispelled that notion. He had to change the entire power plant.

Two hours later, the ship was ready. Everyone at the college pitched in and helped clear away obstacles, including the goal-posts. McGee reluctantly broke away from his fans, jumped into the plane with Decker, and after a somewhat bumpy run, took off successfully.

The next morning, the college newspaper came out with pictures. One caption read: "It droppeth like a gentle rain from heaven—Stinson Voyager. Next Week, Superman."

When the squadron was first organized (Major Wilfred J. Donovan, deputy commander of the New York Wing, obtained the necessary personnel), the pilots were assigned for a month's duty at a stretch, but this was soon changed to a "for the duration" status. With the heavy demand for towing and tracking, time didn't permit the breaking in of replacements every few weeks.

When sub-spotting was discontinued by the coastal patrol in the summer of 1943, large numbers of the overwater fliers and technicians shed their barnacles and took up towing and tracking. Beneath low-slung fuselages where bombs and depth charges had been carried, there now trailed flexible cables and target sleeves.

The Hicksville pioneers, who had since moved to Flushing, Long Island, were absorbed by the new setup. With the AAF hard pressed to muster enough planes and pilots to tow for aerial gunners, ack-ack batteries were being left with nothing to sharpen their sights on. That's where the Civil Air Patrol came in. Already tested at Fort Sheridan and in the New York area, the civilian auxiliary of the AAF was the logical choice to handle an expanded tow-target program that was to extend to both coasts.

Eight of the anti-submarine contingents were kept more or less intact, strengthened by picked men from other bases, and put to work towing targets under the same commanders whose orders they had carried out for nearly eighteen months while protecting the shipping lanes. Major Wyant Farr's CAP Coastal Patrol No.1 set up headquarters at Hadley Field, near New Brunswick, New Jersey; Coastal Patrol No.5 from Daytona Beach, with Major Julius L. Gresham at the helm, became a resident of Otis Field, in the heart of Massachusetts' Cape Cod country; Major Ralph Earle's old Suffolk, Long Island, outfit transferred its activities to Hyde Field, Maryland; and Base No.21 from Beaufort, North Carolina, reinforced by standout performers from Manteo, went into business at Monogram Field, Virginia, under Major Frank E. Dawson, the "pickle king" from Charlotte.

Four other former coastal patrol units sky-trekked across the continent to the West Coast. These included Major Jim King's frostbitten Bar Harbor outfit, which landed at Gray Field, Fort Lewis, Washington; the Brownsville (later San Benito) unit, headed by Captain Corwin T. Wilburn, which alighted at Gibbs Airport, near San Diego; Major J. W. McLendon's Base 15 from Corpus Christi, which went into operation at California's San Jose Army Air Base, and Major Lloyd Fales' coastal patrol aces from Miami, together with volunteers from the Panama City base, which took over at the Grand Central Air Terminal, Glendale, California.

A Typical outfit consisted of about twenty airplanes, some fifteen pilots, and perhaps twenty mechanics and technicians. Among the members of one representative unit were a man of 66 and a girl of nineteen. Women usually numbered three or four, and specialized in paper work and communications. Generally they wore sergeant's stripes on their trim uniforms.

While the majority of fliers were not professional airmen in civil life, numbers of them held a fistful of licenses—commercial, instrument, and instructors'. Almost all were

veterans of months on coastal patrol and had logged hundreds of hours over the water. A high percentage of them hailed from the East and from the states bordering on the Gulf of Mexico. The rest were from the Central and Western states. Some of the West Coast fliers, grounded since the beginning of the war by defense-zone regulations, got a crack at active duty when they joined outfits operating on the Pacific Coast after the Fourth Air Force had arranged for CAP tow-target and tracking operations in this area.

On the Atlantic Coast, National Headquarters maintained constant contact with the military in coordinating the various phases of the tow-target and tracking operations. In order to insure the same thorough standard for operations on the Pacific Coast, CAP Headquarters established a special coordinating unit at Fourth Air Force Headquarters in San Francisco. This was commanded by Major J.L. Gilbertson of Portland, Oregon, who had done an outstanding job as intelligence officer for CAP Southern Liaison Patrol No.1 at Laredo and who was equally effective in coordinating towing and tracking activities.

To former coastal patrol old-timers who knew what it was like to go for months without such aids as warm flying togs, up-to-date flotation gear, and adequate replacement parts for their wing-weary planes, the change-over to the towing and tracking assignment seemed like a Christmas party. No longer necessary were the beg-borrow-and-steal techniques that had enabled them to put their ships into the air during the lean days along the coast. Now they were handed fleece-lined flying suits and boots for winter excursions in "air-conditioned" cabin planes; Mae Wests and rubber boats were theirs for the asking whenever they flew off-shore missions; and parachutes were standard equipment.

CAP personnel on a military base usually lived at the BOQ or in a special barracks of their own. They ate at Army messes for \$.25 a meal and traded freely at the PX's. Jeeps, trucks, and staff cars were turned over to CAP units or were available on call. Engine replacement parts were easier to obtain and complete overhauls and checks at central maintenance depots were routine affairs. The Civil Air Patrol was coming into its own, both from its status as an auxiliary of the Air Forces and from the record it had chalked up on coastal patrol.

Towing apparatus was specially designed for CAP ships along Army specifications—a far cry from Major Vilas' hand-operated clothesline back at Fort Sheridan. An electrically powered reel in each ship, weighing 300 pounds, carried 5,000 feet of flexible cable, and was mounted directly behind the pilot. Mechanics and radiomen took their turn as tow-reel operators, as did the extra pilots, when manpower was short and missions were numerous.

On their early assignments, the CAP targeteers flew low with small targets for machine-gun fire, and when this proved successful, they flew at higher altitudes for the various types of anti-aircraft gun. Sometimes targets were shot off by accurate fire, but spares were always carried, and it was only a few minutes before another sleeve could be hooked onto the cable. Added incentive was furnished to ack-ack gunners by detachment artists, who painted garish caricatures of Hitler and Tojo on the targets.

True, life in the air and on the ground had been made more pleasant, but that didn't mean there was any easing off in the type of flying performed by the civilians. Towing targets by day and tracking by night was one of the roughest double-features they had ever run up against. It wouldn't have been nearly so tough, of course, except for the CAP fliers' insistence on knocking themselves out to do more than merely a "satisfactory" job.

There wasn't a harder-working, more enthusiastic pilot than Captain Gordon McAlpin Pyle. Pyle had been cruising peaceably in his yacht in the Mediterranean when hostilities broke out. He returned home immediately and, when coastal patrol units were set up along the coast, he joined Major Ralph Earle's Suffolk, Long Island, base, taking his turn on overwater missions and serving as intelligence officer. When the coastal patrol stations were discontinued, he was determined to move on to another flying job. That's how he became a member of the towing and tracking detachment at Flushing, New York.

In the autumn of 1943, he and a young artillery officer from nearby Fort Hancock took a Taylorcraft on a radar tracking mission off Sandy Hook. A menacing overcast was moving in from the west, and Captain Pyle turned into it to give the radar technicians some solid practice in spotting an object hidden behind clouds. That was the last anyone ever saw of the plane or its occupants. On the radar screen, the ship was seen to turn around, then drop swiftly until it registered zero altitude.

For several days, search and rescue crews combed the Atlantic in the vicinity of Sandy Hook. But they finally had to give up. Not a trace of Captain Pyle, his passenger, or the Taylorcraft was found. The overcast, theorized some of the officials at Flushing, may have contained heavy winds and turbulence which tossed the little plane about like a cork and blew it out to sea.

A few days after Captain Pyle's disappearance, National Commander Earle Johnson called on Mrs. Pyle to express his sympathy. He was surprised to see the door opened by a small, attractive woman who seemed perfectly composed.

"He'll turn up," she told Colonel Johnson, with a confident nod of her head. "Gordon has been given up for lost twice before—once when he was missing for three months on a round-the-world specimen collecting trip, and again when he dropped out of sight for a week during a sailboat race to Bermuda.

"And if he doesn't come back," she said in a small but firm voice, "I'll understand. He was doing what he wanted to do."

Colonel Johnson was about to leave when Mrs. Pyle made an unexpected request. "There's something you can do for me, Colonel. I'd like permission to go out to the base at Flushing and work in the radio section, so Gordon will find me there when he gets back."

So, for several weeks—until long after all hope for her husband had been abandoned—Mrs. Pyle helped out at the tow-target station, never betraying her great grief and never letting down.

Several months after the extended towing and tracking operations got underway in January 1944, Major Gresham, the big and rugged ex-commander of the Daytona Beach coastal patrol base, was promoted to the top spot on the East Coast. The four basic units were consolidated under a single command, with fourteen detachments which towed for the Harbor Defense gunners and for ack-ack batteries all the way from Portland, Maine, to Key West, Florida. Gresham's headquarters was first set up at Hyde Field, Maryland, and later transferred to the Baltimore Army Air Base. Major overhauls were pulled at Baltimore, where 45 mechanics and half a dozen radio technicians were constantly on duty. An old ship could be flown in and a reconditioned one flown out in the space of a few minutes. All CAP missions in the East were flown under the operational control of the First Air Force at Mitchel Field.

On the West Coast, meanwhile, Major Lloyd Fales, leader of the Miami-Panama City contingent, took charge of the combined CAP bases. As on the East Coast, the four original units were consolidated with about a dozen detachments, some of which served anti-aircraft batteries stationed far inland from the coast. Fales' headquarters was soon moved from Glendale to San Jose, California, where he had set up a central maintenance depot.

Fliers in both sections of the country towed for machine guns and for the 40- and 90-millimeter anti-aircraft guns, using the A-7 Sleeve and A-10 Banner targets. They also hauled for the 120s which were used exclusively for radar firing. Using Gull-Wings, Wacos, and Stinson Reliants for the most part, the CAP pilots flew with the throttle against the dashboard at a speed of 110 to 120 miles an hour. Before they were through, the East Coast boys were even towing sleeve targets at night for live fire. No firing at night was done along the Pacific frontier, although there was plenty of searchlight tracking and dry-run sighting after dark.

Procedure on tow-target missions ran something like this: Orders from either First or Fourth Air Force Headquarters, whichever the case might be, would go to a group's operations officer. The crews, equipped with two-way radio sets in their planes, would be briefed and dispatched on a well-timed schedule to the area indicated. Here they would fly a pattern for the gunners at the altitude requested, using whichever type of target that was required. If they were towing high for big guns, they might let out as much as 5,000 feet of steel cable. If, on the other hand, they were on simulated strafing missions for the 20-mm. batteries, they might use as little as 1,000 feet.

Lines on the cable were marked at every thousand feet—yellow at 1,000, green at 2,000, and so on. The target itself would be slipped out along the cable when the desired length was reached. At the end of a mission, a ring would trip the latch and allow the target to drop while the cable was being reeled in.

When flying for radar-aimed guns, some of the lighter CAP planes carried metallic rods aboard to give the automatic range finders something to work on. And sometimes they really made it tough for the radar crews to track them. They would take up a batch of tinfoil strips, known as "window," which, when dropped through the air, tended to blur the radar screens. This device was used extensively by combat crews during the war to confuse enemy gun-laying radar.

A new wrinkle cooked up in the East was the Roving Detachment, a sort of flying circus, which shuttled out of the Baltimore CAP Tow Target Headquarters, and serviced small, scattered gunnery stations out of the range of the regular bases. The men were usually quartered at the nearest Air Force installation to the towing site, which became their base of operations unless landing strips were laid out by the particular ground troops for whom they were flying.

Compared to the number of hours flown, an extremely small number of accidents occurred, and the percentage of misdirected fire was negligible. Occasionally, accidents did happen, and planes collected flak intended for the targets they were hauling.

One day, an East Coast pilot caught a burst of fire directly beneath his plane. When he recovered his equilibrium, he saw daylight streaming through wings and fuselage. His tow-reel operator tapped him on the back, and pointed wordlessly to his parachute pack. A piece of flak was firmly imbedded in it.

"That's enough for me," the pilot yelled, and turned for home.

An officer on the ground grabbed the radio mike. "Hey, where the hell are you going? We're not finished yet!"

"Listen, bud," replied the pilot. "I volunteered for this job cause I like to fly, but, dammit, I'm going overseas where it's safer."

A similar experience was recorded by CAP Tow Target Unit No.20 at McChord Field, Washington.

When the first CAP uniforms showed up around the Glendale Air Base early in 1944, the GI's saluted the newcomers just to be on the safe side. About the time the soldiers discovered they were members of the CAP towing and tracking unit, an order from Fourth Air Force Headquarters decreed that Major Fales' men were not entitled to a salute.

"That gave our morale a powerful kick in the pants," recalled the soft-spoken Floridian. "It wasn't that we were rank-happy. Not at all. It was just that we were doing a man-sized job for the Army and appreciated the friendly recognition embodied in a salute. The Glendale base commander was probably more disturbed about the ruling than we were and informed me that he had nothing to do with it."

In a few weeks, GI's at the base were saluting again—voluntarily. Word had been passed on by the gunnery outfits about the towing job the CAP fliers were pulling for the ack-ack batteries. Besides, many of the Glendale soldiers had gotten acquainted with CAP personnel

and not a few had taken hops in the brightly painted aircraft. Mainly, it was the old story of giving more than "just enough," of passing back and forth over the guns until barely a spoonful of gas remained in the tanks. It was because the CAP crews were flying more hours and taking longer chances than anyone had ever expected of them.

When Japanese balloons were spotted inland in the state of Washington, CAP planes at McChord tried to get off to track them down, but the weather was too soupy, and the hunt was called off. Later, planes searched the entire area seeking more reported balloons. When these were believed to be airborne, the little ships went out hunting, but they never caught up with any of them.

The McChord unit towed targets for the anti-aircraft batteries at Fort Stevens, Oregon, and Fort Casey, Washington. They also went on missions for the Fort Lewis gunners at the Yakima Gunnery Range, just outside of that town. Army engineers at Fort Lewis built a landing strip which served admirably for CAP operations in that territory.

Many of the Western assignments were in far-off desert areas, where temporary operations huts were set up and small flying units were established to go through their paces for wilderness-bases batteries. It was at Palmdale, a sub-base 80 miles from Los Angeles, where the only West Coast fatality occurred. The victim was Lieutenant Clifton K. Hyatt, former automotive-equipment salesman, who came to California after logging 737 hours off Miami on coastal patrol. When the engine of his plane quit on take-off, Hyatt attempted a 180-degree turn back to the runway for a dead-stick landing. It didn't work—he spun in and was killed instantly.

All told, the CAP flew 20,593 towing and tracking missions, totaling more than 46,725 airplane hours. Seven men lost their lives in these operations, five were seriously injured, and 23 planes were written off as totally destroyed.

Shortly before V-E Day, AAF overseas veterans took over the towing and tracking chores. With the war moving into its final phase, the Air Force had plenty of men and planes to handle the dwindling program. Few of the AAF-trained anti-aircraft gunners ever got into action, however. For the most part, it was those who learned their gunnery ABC's popping away at sleeves and banners hauled by the Stinsons, Wacos, and other CAP stalwarts who carried their sharpshooting "savvy" into the ETO and the islands of the Southwest Pacific.

CHAPTER 7

FLYING PONY EXPRESS

It was March 1942, scarcely three months after Pearl Harbor. Military installations throughout the United States were on a 24-hour alert, and more security-conscious than ever before. The dark specter of enemy sabotage hung heavily over the nation. A war new to world history was being fought—a war against the insidious fifth column.

Imagine, then, the surprise and agitation of a control-tower operator at an Army airfield when he spotted a small private plane bearing the unfamiliar emblem of a red three-bladed propeller with a white triangle on a blue disc, appearing out of the sky and heading toward the runway.

"What the hell's that puddle-jumper doing up there!" he exclaimed to an observer next to him. "Any damn fool knows only Army ships can land at this field."

The observer's answer was cut off by the radio.

"Blank Tower, this is Waco 975."

The operator switched on his mike and snapped testily, "Waco 975. This is Blank Tower. *Who* are you? Go ahead."

The flying jeep ignored that one. "Blank Tower, this is Waco 975. Request landing instructions."

The operator pulled the collar of his OD shirt with a gesture of annoyance, then turned with relief as a young officer entered the tower control room.

"Say, Lieutenant, that Waco upstairs wants to come in. Have you any idea who he is, sir?"

"Beats me," the lieutenant answered. "Maybe he's lost—and maybe he's . . ." He ended on an ominous note.

"Yeah," the operator said worriedly, "I'd better find out just who this monkey is." Then turning back to the mike, crisply, "Hello, Waco 975. This is a military reservation. No private planes allowed."

"I know that," the answer came immediately, "but I'm not flying for my health. I've got some cargo for your depot." Then, exasperated, "Come on, fella, how about those instructions?"

There was no mistaking the voice of an American. The observer pushed aside his fears of sabotage along with the usual radio-telephone procedure, "Keep your flaps on. We don't have a report on you. Stand by."

"Roger! But hurry—this baby is low on gas. And, for the record, this is an authorized Army courier service flight!"

"Okay, take it easy, Waco. We'll check on it." The observer and the officer looked at each other. Suddenly, the lieutenant nodded decisively, picked up a telephone and spoke rapidly. Overhead, the Waco circled, waiting.

In a few minutes the pilot made radio contact again. "Hey, Blank Tower! What goes on down there? Are those soldiers with rifles for *me*?"

"Don't get excited, Waco 975. Can't take any chances these days, you know."

"Bring him in," the lieutenant ordered.

And the operator issued instructions into the microphone.

"Roger. It's about time!"

The little ship landed, followed the jeep, and parked in the midst of a squad of armed guards.

"Well, well, whatta reception!" the pilot remarked to the waiting lieutenant.

"Sorry, but I'll have to see your papers."

"Here they are, Lieutenant. Cross my heart, I'm not a spy."

The humor was totally lost on the serious young officer. Moments later, feeling slightly abashed and greatly relieved after ascertaining that the pilot was really performing a service for the Army, the lieutenant turned to the "guard of honor" and ordered curtly, "Dismissed."

The young pilot grinned; he was enjoying the show immensely.

"Oh Lieutenant. You'll find the cargo in the rear. I'll be back in an hour for my return trip. Please have my ship emptied by then." And without waiting for a reply, he strode off, with the officer scowling at his retreating figure.

A few minutes later, when the Waco's cargo of spare parts had been stacked alongside the tiny plane, the lieutenant blurted, unbelievably, "Migod, we've been using bombers to carry loads like this!"

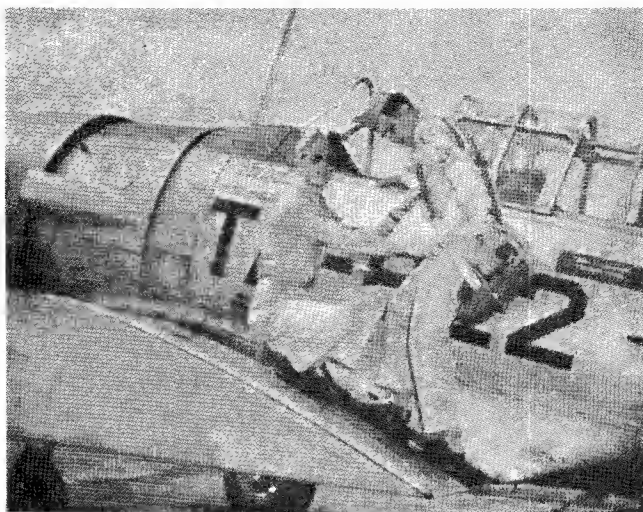
That was the first and only time a CAP member was forced to look down the barrels of Garand rifles in the hands of a squad of nervous guards. Information was quickly disseminated to Army posts throughout the country about this new, wartime duty of the Civil Air Patrol—The CAP courier service. And it was not long before the Army greeted the little grasshoppers with open instead of loaded arms.

Courier operations were born of necessity. Transportation difficulties were one of the most serious obstacles to overcome in gearing the United States for war. The carriers of the nation were burdened with a tremendous load. Even comedians were fed up with the quip, "Is this trip necessary?" People laughed, but the transportation dilemma was no joke. Troops, guns, tanks, planes, and machine parts had to move. Railroads and trucking companies were utilizing every piece of rolling stock they could get their hands on. Commercial airlines, their strength vastly reduced by the demands of the Air Transport Command, loaded their planes to the last permissible pound.

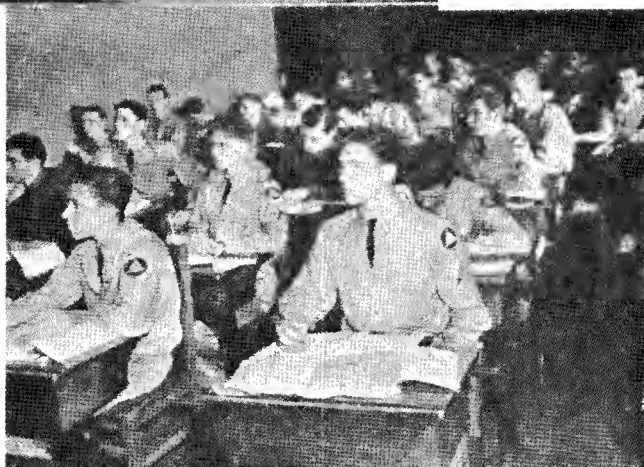
But all this was not enough. The mountains of cargo, the fighters and bombers grounded for lack of a few vital parts, the official personnel in need of quick transportation—these were on the increase. The Army and the United States war industries, biggest customers of carriers during wartime, looked for a solution, if only a partial one, to this problem which threatened to bog down the entire war effort. Actually, there was only one other resource which remained virtually untapped.

Two tests engineered by the CAP in the spring of 1942 helped point the way. One was a 30-day experiment run out of the Middletown air depot by pilots of the Pennsylvania Wing. In the first ten days alone, five planes transported 1,000,000 pound-miles of Army cargo to AAF installations as distant as South Carolina and Georgia—and in weather more appropriate for hangar-flying than for cross-country junkets. Operations were under Wing Commander William L. Anderson, who reported: "The response at all Army fields has been enthusiastic and officers promise to make additional use of the Civil Air Patrol as they become familiar with its functions."

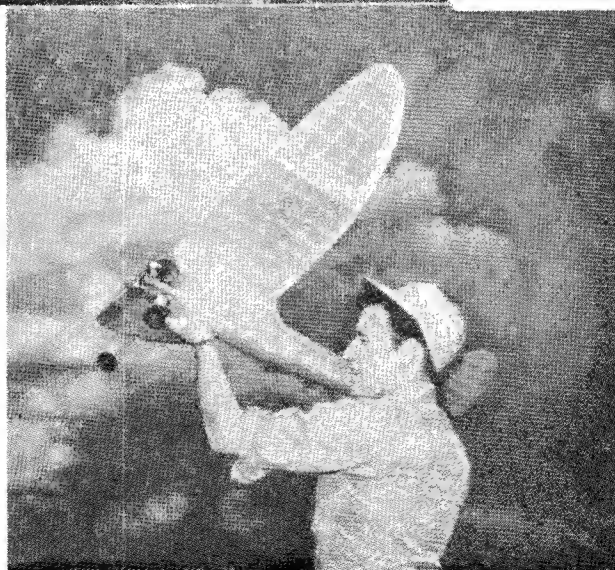
The other shot in the arm was furnished by Major Garnet Hughes, executive officer of the New York Wing and later a member of the national CAP staff. He made a careful study of emergency shipments to the Grumman Aircraft Corporation on Long Island—a massive plant which often called for rush orders of parts, tools, and materials. Before Hughes ran out of paper and pencils, he had compared costs and times posted by the trucks and motorcycles being used on these assignments with the expenditure of time and money which would



*AF Capt. E. L. Davidson
explains parachute to Ca-
det Edward Cheatham*



*Serious CAP cadets "fly a
desk" in pre-flight naviga-
tion training*

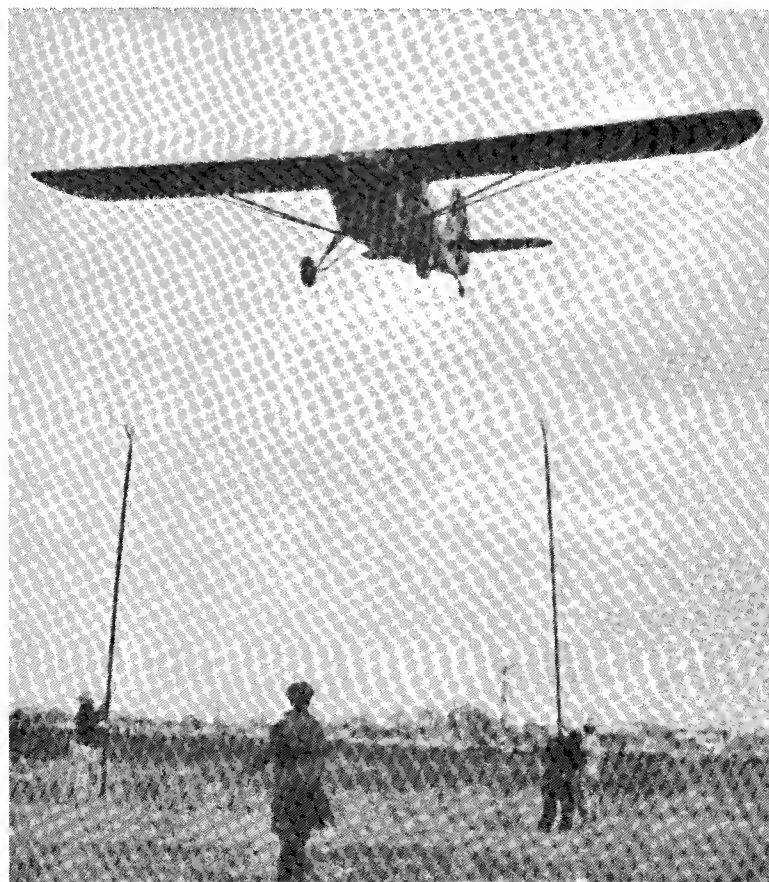


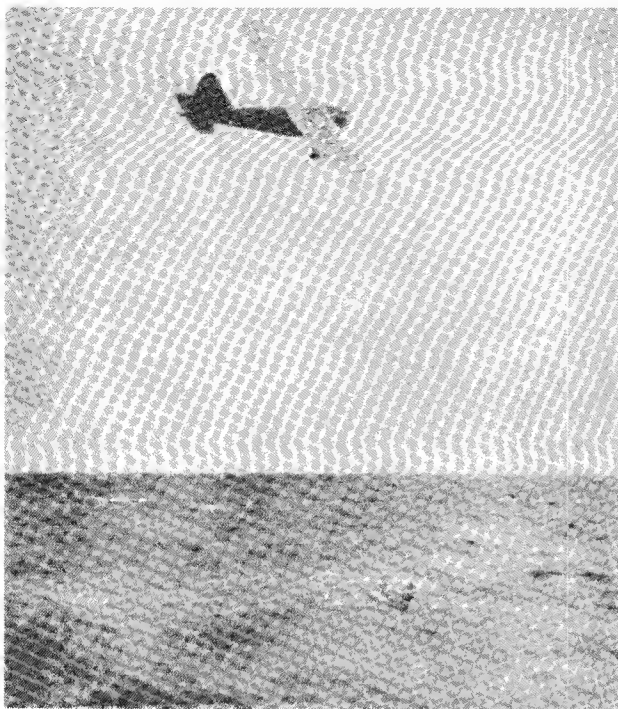
*Cadet Morgan Jones wins
3rd place in Delta States
model plane meet*



Minn. Wing flies snow-stalled freight

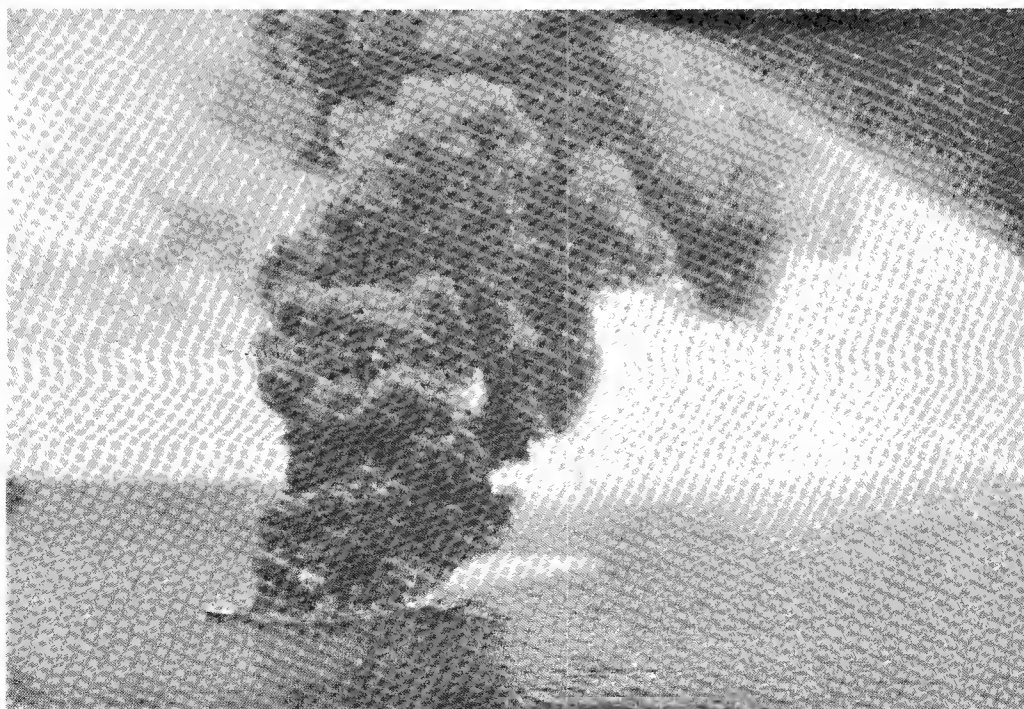
Message pick-up by Michigan couriers





Patrol locates sub victims on raft, radios for help

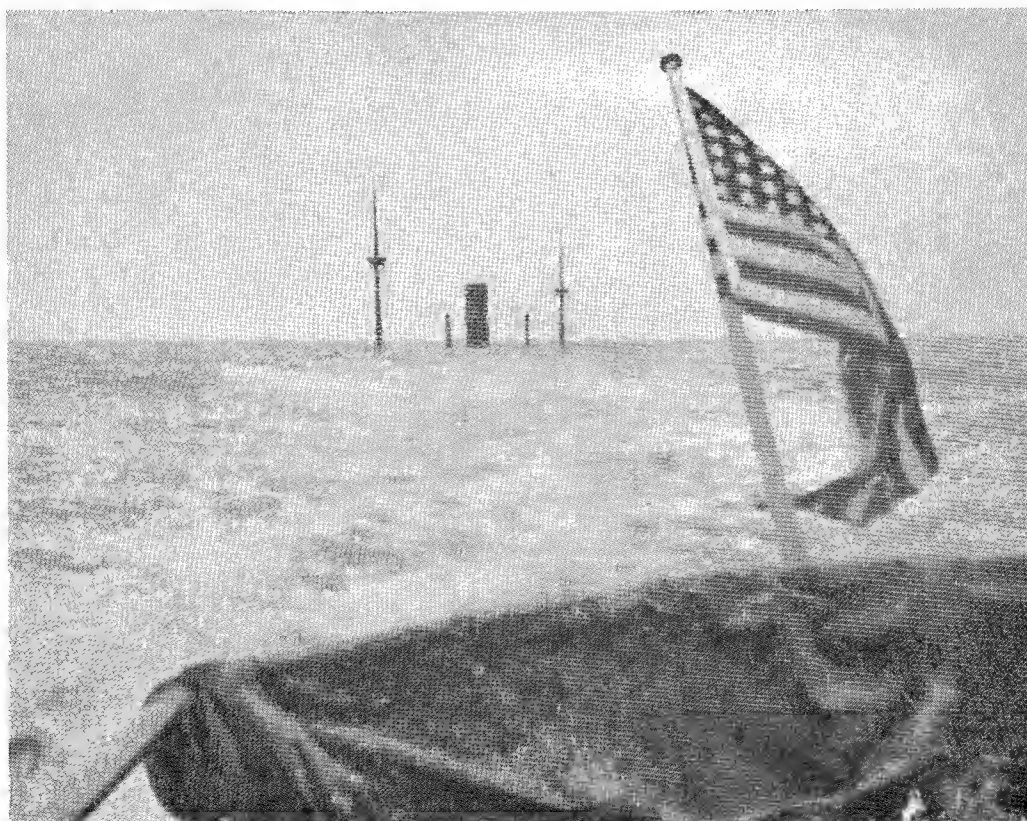
When U-boats crashed Patrol net, oil tankers blazed





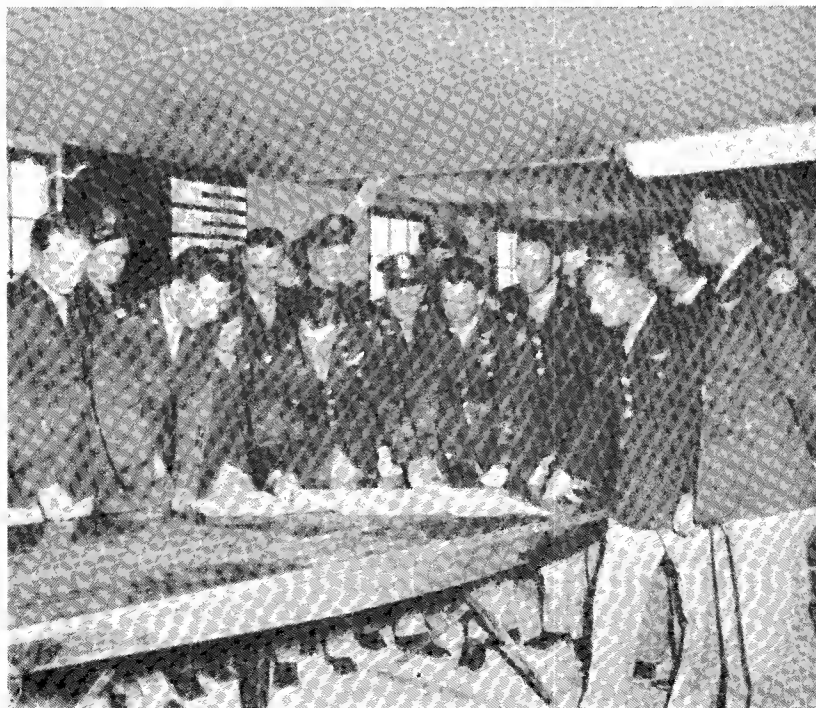
"Flying Tiger" prowls Maine Coast

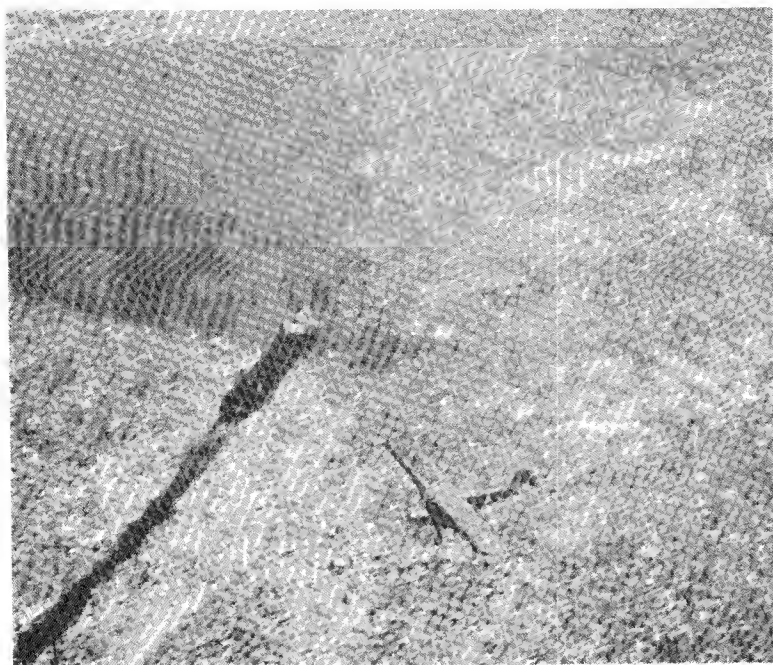
Patrol cuts toll of freighter loss





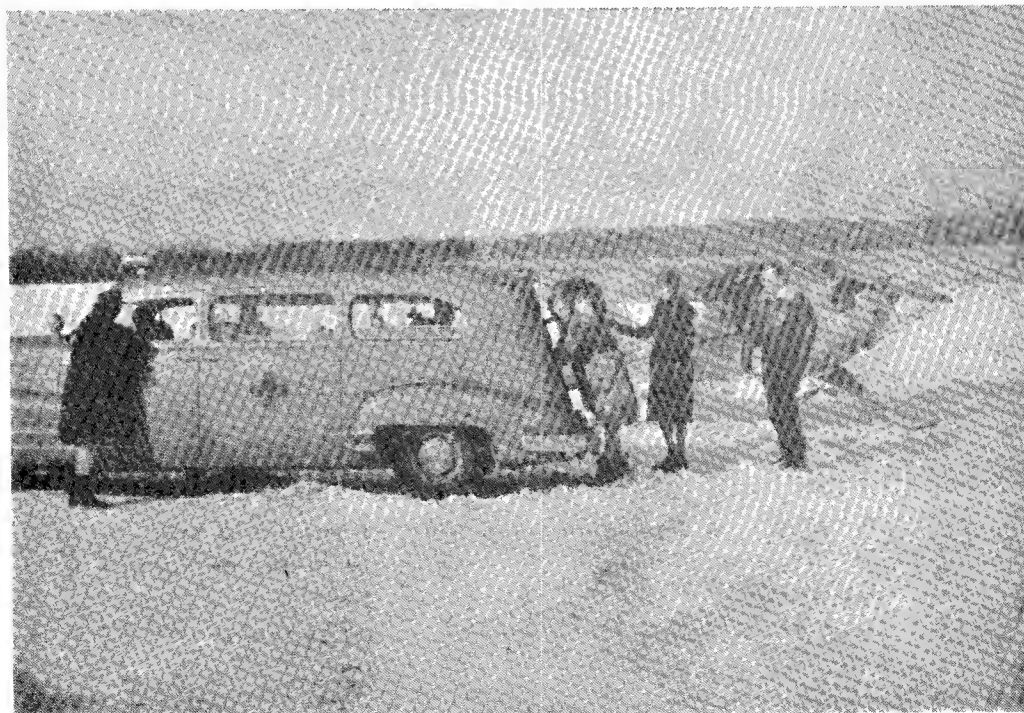
Southern Liaison Patrol scans for saboteurs
CO briefs SLP pilots for Mexican Border hop

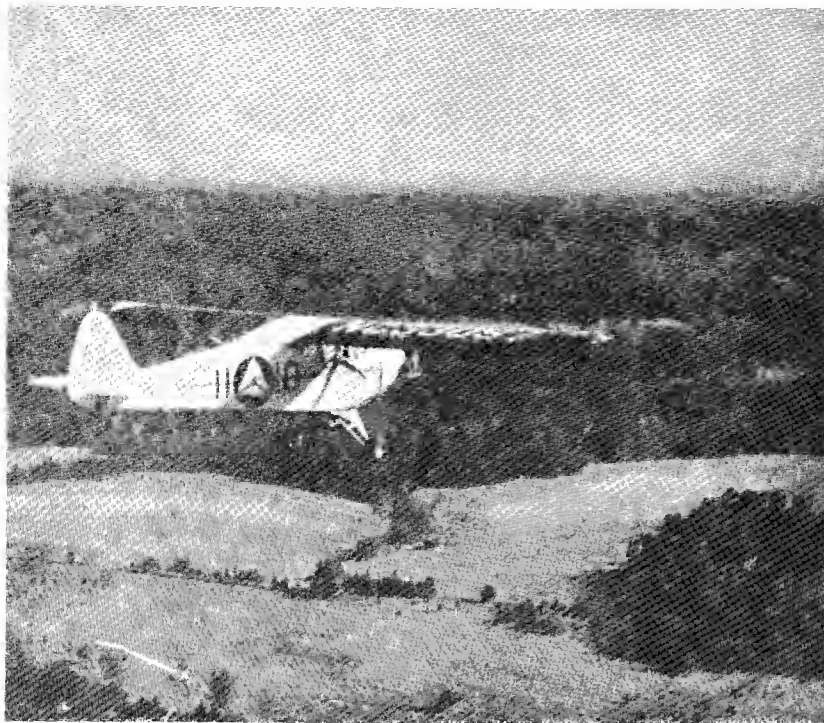




Food drop to icebound Erie Freighter

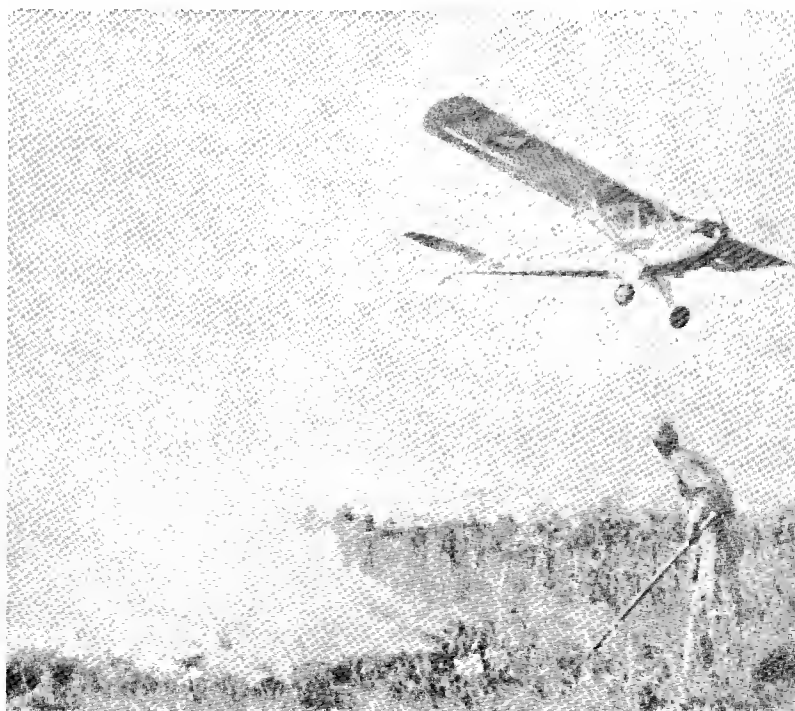
CAP and Red Cross evacuate Pa. patient





East Texas Forest Patrol protects woodlands

Texas Patrol warns farmer to curb brush fire





*Brig. Gen.
Frederick H. Smith, Jr.
former
CAP Commander*



*Maj. Gen.
John F. Curry,
first
CAP Commander*



*Brig. Gen.
Earle L. Johnson,
wartime
CAP Commander*



*Col.
Harry H. Blee,
wartime CAP
Deputy Commander*

*Brig. Gen.
Lucas V. Beau,
present
CAP Commander*





CAP Search and Rescue missions comb Nevada's snow-capped razorbacks

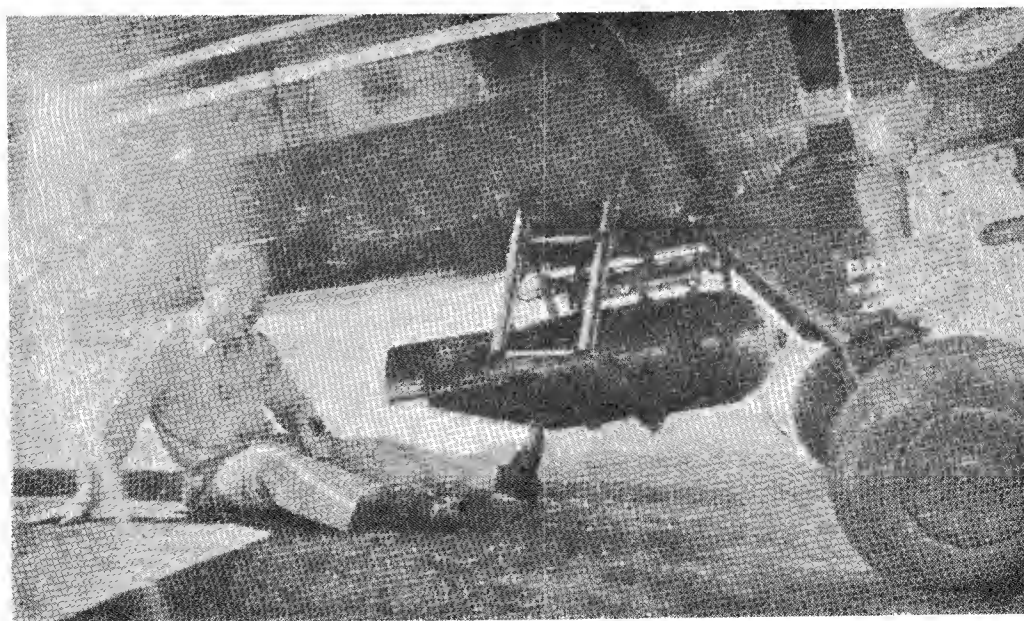
Nevada Wing spots P-63. Pilot uses 'chute as marker





Flying Minutemen in Zoot Suit garb

Zack Mosley shows low bomb clearance





Pres. Roosevelt awards Air Medal to Maj. Hugh R. Sharp (C), and Lt. Edmond Edwards (R) CAP pilot who later flew for the Navy, for their heroic sea rescue of Coastal Patrol flier, Lt. Henry Cross. Looking on is James M. Landis, wartime Chief of OCD

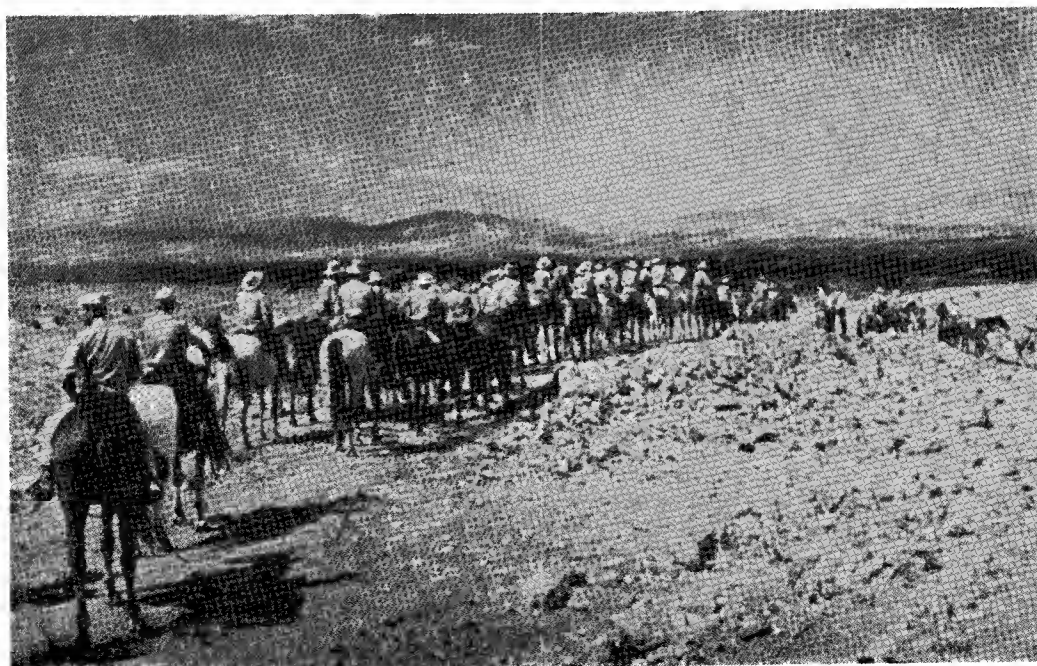
Early in war, armada of light planes meet at Lansing, Mich., for CAP assembly



*Signal is sent to mounted
troop to check 'chute
sighted by CAP plane*



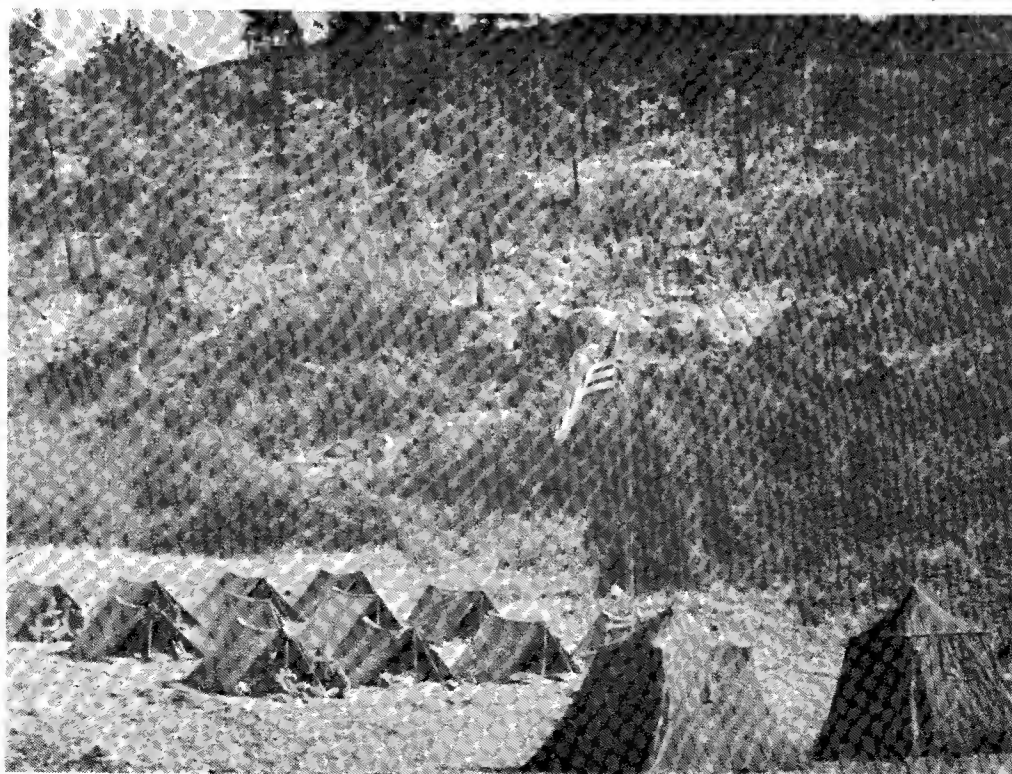
CAP Patrol returns from mission with rescued crewman





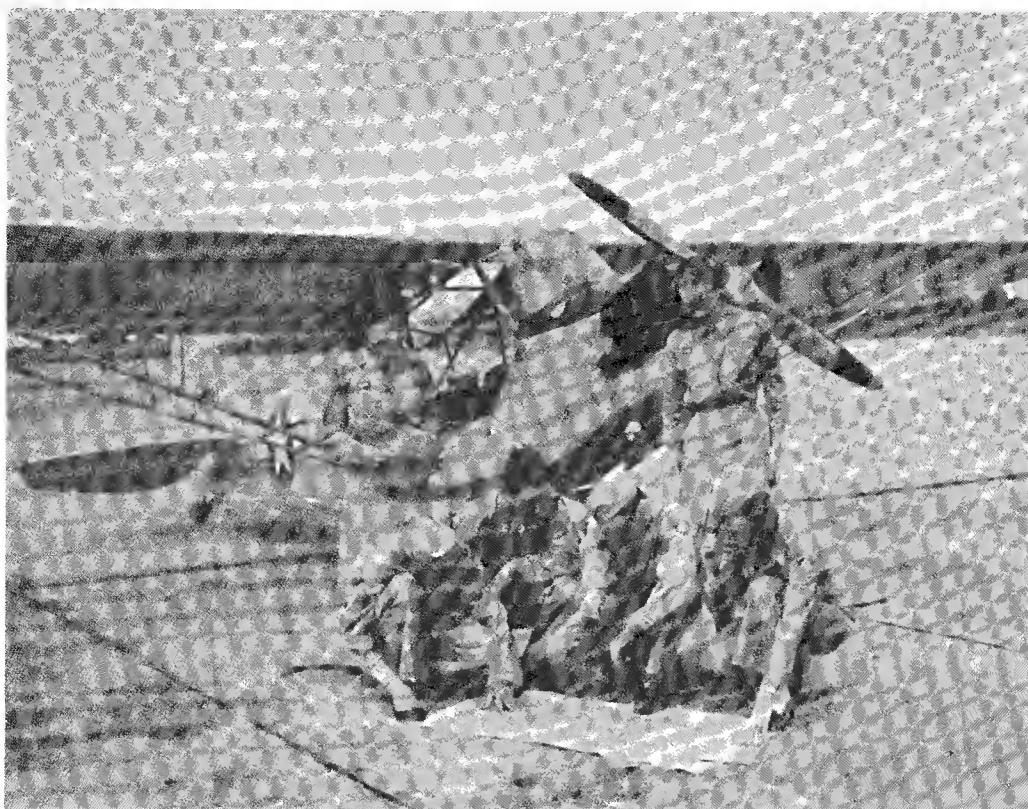
Link training for Wisconsin cadets

Colorado cadets camp in mountains





*Bomb poised, a Sky Jeep heads for the drawn-
lighted Florida sub-lanes*



Cadets are briefed for Miss. Flight

Dallas cadets help keep 'em flying



be involved in making deliveries by plane. In April, when 286 short trips were run for Grumman, Hughes figured the road mileage at 14,780 miles as compared with a hypothetical air mileage of 11,040 miles; road time totaled 422 hours, as contrasted to an air time of 110 hours, and the road cost was computed at \$1,700—more than double what the air cost would have been. Even if deliveries by plane had added up to substantially more, the saving in time was the payoff that would have justified the greater expense.

By summer, the Civil Air Patrol had convinced most Army officials and numbers of manufacturers that light planes merited a place in the wartime transportation sun. Directives out of headquarters spread word of the new volunteer mission. CAP airmen were soon flying Cubs, Taylorcrafts, and other featherweights cross-country on regular schedules between Air Force installations and on an emergency basis for many war plants and sub-depots.

With the advent of courier service for the First and Second Air Forces—and later for the Fourth Air Force—the AAF was able to release planes and crews for more urgent assignments. Not only that, the light ships were found to possess a distinct advantage over the larger military aircraft as carriers of rush cargo. They consumed only slightly more gas and oil than the family car, could take off and land in a cow pasture if necessary, required little maintenance, and were ideal as feeders for the long-distance airlines—a function destined to become increasingly important in peacetime aviation.

Utah furnished a prime example of the economy of CAP operation. Prior to the establishment of the courier service in that state, the Army had been using a bomber on trips between Salt Lake City and Wendover Field. Each round trip cost \$400. When the CAP took over that run, the cost to the Army amounted to a mere fifteen dollars.

The Army was interested in economy, but it was more interested in results and the dependability of the CAP as couriers. No better proving ground for the new service could be found than in the area assigned to the AAF's Second Air Force with its widely scattered air bases throughout the western half of the United States from the Mississippi River through the Rocky Mountains to California. It was rough, rugged, sometimes desert, sometimes mountainous country. The CAP had proved itself in the East. Would it prove equally valuable in the West?

Major Phil Hinkley of CAP Wing 93 in the state of Washington was the man they turned to. He and Brigadier General Robert B. Olds, commander of the Second Air Force, got together.

"Give us a month, General," Hinkley said. "We'll show you what we can do."

The general readily agreed. He was using B-17s for courier service at a time when every warplane was needed for combat. However, it didn't take 30 days to win the general's backing. After observing the results of Hinkley's initial effort in effecting a courier service in the state of Washington, General Olds immediately got in touch with him. "Hinkley, I'm convinced. This is the best thing that's come along for the Army in an long time. How about getting in touch with your CAP wings and starting this service between all our bases? I'd like to see daily scheduled runs made throughout the Second Air Force. You handle the details."

"Sure thing, General," Hinkley agreed. "I'll contact the others, and let you know as soon as I hear something definite."

Hinkley got busy on the phone. First, he called up Major Joe Bergin, Utah's wing commander, and asked for Utah's help.

"Think you can do it, Joe?" asked Hinkley, after explaining the setup.

"Of course, Phil," Bergin answered. "We have 600 men and women around here just itching to get a chance to help, and this is it. We'll have scheduled flights going in a month."

Great! With Salt Lake City as a center, Hinkley figured CAP couriers could make stops at every Air Force base scattered throughout Utah.

Hinkley then called Major W.W. Agnew, wing commander in Colorado at Denver. After explaining the situation, Hinkley asked, "Say, Major, I know your outfit will have the toughest territory to fly over there in those mountains. Think your boys will be able to carry out flights on daily schedule?"

"Listen, Phil," came the answer, "we have some of the best damned pilots who ever stepped into a cockpit. If anybody can do it, they can."

Hinkley, heartened by the cooperation given him by Utah and Colorado, went after the wings in Montana, New Mexico, and South Dakota. The response was equally enthusiastic. By October, just two months after the first of the "experimental" missions was flown in Washington, the Second Air Force had a network of daily CAP courier flights linking seventeen western states. Besides those already mentioned, they included Arizona, California, Idaho, Iowa, Kansas, Nebraska, Nevada, Oklahoma, Oregon, Texas, and Wyoming.

Courier operations in the West continued under a full head of steam during the remaining portion of 1942, and on throughout 1943, as transportation remained at a premium. The war was still a long way from being over, production was reaching new highs as each succeeding month passed, and the Second Air Force was particularly busy training an even greater number of men for combat duty. Mail, cargo, equipment of all shapes and sizes were constantly on the move as new air bases were opened and old ones enlarged. All this activity kept the ubiquitous little planes of the CAP hopping with vital loads.

At the peak of operations, the mountain couriers compiled an enviable record for flying efficiency. Operating on daily schedules over a network connecting seventeen states, the modern pony express completed more than 90 per cent of all missions undertaken. During the summer of 1943, with the weatherman's benign cooperation, completions skyrocketed to 97 per cent.

In June of that year, the Second Air Force shifted its headquarters from Spokane to Peterson Field at Colorado Springs. At the same time, courier headquarters of the Colorado Wing came to Peterson from Lowry Field. Supervising the latter move was Captain Bill Madsen, operations officer for the "mountain boys."

Here was a man who could really handle a tough job. Without a doubt, he was the central figure in courier operations throughout Colorado and the surrounding territory, and his was a dominating influence on those members of the Patrol who flew through all weather to maintain the "dratted" schedules. In his passion to make those schedules work, Madsen was the mother hen to his flock of chicks.

There was a lot to this business of running a courier station, especially over the roof of the Rocky Mountains, as Captain Madsen learned from hard experience. There are currents, swirls, and swivets in the air in that region which test the capabilities of the most experienced pilot. When the black thunderclouds gathered and the ceiling closed down over the Black Forest—that sinister terrain between Denver and Colorado Springs, the bugaboo of all Colorado pilots—and one of his boys was up there fighting the storm, Captain Bill had that agonizing job of sweating him in, pacing back and forth, peering out into the darkened skies, listening for the sound of an engine, and calling, and calling again on the radio. It was a lonely vigil.

But the pilots knew that Madsen, known to everyone as "Pappy," had flown over every inch of their routes, knew all the pitfalls, and why delays must occur even when they were doing their utmost. Every morning he was at the field when they arrived, ready to help them load up and sometimes even twirl the prop.

What they didn't know was that then he began a busy day arguing, cajoling, and even pleading with plane owners, mechanics, the C.A.A. ("He flies the planes too long and too hard.") and Army officers ("Why isn't Flight 50 in yet?"). What they also didn't know was that there were mountains of paper work every day—tedious, routine stuff—and it was hard for him to fill out a report when he'd much rather have been up in the "blue" himself.

Lieutenant Ruth Dively, secretary of the Colorado Wing, and one of Captain Madsen's closest associates, relates the end of a typical day, "Along about sundown, the pilots start trooping in. 'Hi, Pappy. Did my wife call?' 'Can't stay tonight, Pappy—have a heavy date.' But not a step does one of them stir until the planes are inspected and staked down, the mail sorted, the log books charted, and the daily reports made out. Then and only then, is their work finished. It's dark when the Captain gets through, but he's happy. The mail and cargo have been delivered on schedule, planes and pilots are safe. Pappy locks up and heads for home with his favorite song on his lips—'Coming in on a Wing and a Prayer.' "

One of the most famous in Pappy's flock was Lieutenant Jack Fowler, known as "The Ambassador." He acquired the nickname because he could take his place alongside of any big brass out of Washington without turning a hair. His affable, jovial manner captivated everyone from private to general. And what's more, he built up a better cargo and mail performance for his group than any other flight out of Peterson Field.

The Ambassador wasn't one of those young know-it-alls, either. He was gray-haired, rotund, and a veteran of World War I, having served as an artilleryman in France. Bronze battle stars for fighting the Huns in the Meuse-Argonne, Soissons, and Aisne-Marne offensive, decorated the rainbow-colored ribbon on his tunic. Although too old for active duty in the armed forces during World War II, the Ambassador went out and made a name for himself flying on the home front.

Stories about his exploits in the CAP are legion. There was the tire-and-tube incident that is repeated wherever the courier fliers gather for their many bull sessions. One day, the Ambassador bounced into the operations office at the Pueblo Army Air Base to find a colonel and three other staff officers with their heads in their hands.

"What's up, boys?" the Ambassador boomed, noticing their grim despair.

"You mean, what's down?" said the colonel with a wry smile. "Here we are in the middle of an important trip, and our AT-17 blew a tire when we landed here a few hours ago. What's more, we can't find another tire and tube to fit this crate anywhere."

The Ambassador looked thoughtful. "You tried the supply officer at the air base in La Junta?"

The colonel looked up with a frustrated air. "Yes, Lieutenant, we have. We've tried every damn base within 500 miles! There's not a tire and tube to be had anywhere."

The Ambassador grinned as he backed toward the door. "Now just sit tight, gentlemen, and I'll be back in a hour with your tire."

"Where're you going?" the colonel asked, amazed.

"Over to La Junta," the Ambassador said over his shoulder as he ran out.

"But we've already tried there!" the colonel shouted. His words were lost in the putt-putt of the engine as the Ambassador taxied his little maroon and silver Luscombe out for the take-off.

At La Junta, the Ambassador cornered a sub-depot lieutenant. "Now, looky here," he said with a jovial smile, "we got four staff officers from Air Force Headquarters sittin' over at Pueblo because they can't find an AT-17 tire and tube. These boys are on an important trip, and they gotta get goin' again this afternoon. What can you give me in the way of a tire and tube?"

The lieutenant shook his head vigorously. "I got a call from there a couple hours ago. I told them what I'm telling you. We just haven't any in stock."

The Ambassador looked around. "Those are AT-17's out there on the line, aren't they?"

"Yes."

"That one having an engine change won't be used for a week or two, will it?"

"No."

"You *could* get a tire and tube in stock in a week, couldn't you?"

"Yes, but—"

"Well, how about you givin' me the tire and tube from that ship, and put new equipment on it when it comes in?"

The lieutenant was still thinking it over when the Ambassador turned away confidently. "Send the stuff down the line in a jeep. We can't keep the colonel waitin'."

Back at Pueblo, the colonel and his staff hurried out to meet the Ambassador as he taxied in and parked.

"There you are," said Fowler happily.

The colonel's face lighted up. "How the devil did you manage it, Lieutenant? La Junta told us they didn't have any tires or tubes around."

The old Ambassador climbed out of the plane, chuckled, put his arm around the delighted colonel and said, "Colonel, when you been in the Army as long as I have, you'll know that doesn't mean a damned thing."

But the Ambassador was not the only one with ingenuity among the Colorado courier-service pilots. One of the mountain boys pulled a fast one on an Army control-tower operator that has become one of the legends of the service.

It was a gray, cloudy day at the Dalhart, Texas, Army Air Field and twenty lumbering B-17s were stacked up in a traffic pattern trying to land. Into their midst came a jaunty little CAP plane bouncing along in the turbulent air. Happy to be at the end of his courier run from Pueblo, the pilot tuned in on the tower frequency and asked permission to come in.

"You're number 21 to land, 388," intoned the tower operator, figuring that this was another bomber.

The pilot took a look at his gas gauge. It was low—very low. He called again. Now he was number 17. He waited a few minutes longer, called, and discovered he was number 12.

He thought fast. The needle was now bumping the empty mark. In exasperation, he grabbed his mike:

"Dalhart tower! Dalhart tower! Emergency! This is 388. I'm coming in for a single-engine landing!"

The response to this call was immediate and decisive. In his earphones, the pilot heard the excited voice of the tower operator instructing all aircraft to hold off while a plane made an emergency landing.

There was plenty of laughter and one very red face in the tower a few seconds later when down out of the clouds buzzed a red and black Taylorcraft. It bounded onto the runway, rolled a few feet, and then scooted in along a taxi strip to the parking area.

The last words heard by the chagrined tower operator added no balm to his wounded feelings. "Thanks, Dalhart. Let's try it again sometime."

The mountain couriers learned their jobs quickly and well. They had to. The service was set up like a miniature airline. Split-second schedules were adopted connecting a network of more than 50 flights which spread over the seventeen states. Despite the restriction to daylight operations only, no Second Air Force base was more than a day and a half from courier headquarters at Colorado Springs.

CAP officers assigned as pilots in this service lived, acted, and were treated much as regular Air Force personnel. They had the same privileges, responsibilities, and restrictions. While on duty they lived on the air bases in bachelor officers' quarters and, on orders of the War Department, they carried arms to protect high-priority mail, confidential documents, and government property which they were called on to transport on their courier missions.

Each pilot had the responsibility of seeing to it that his plane was not overloaded. Sometimes sub-depot personnel would do just that. One pilot, Lieutenant J.R. Derryberry, upon returning to his plane after securing his clearance at Lowry Field, found his cargo loaded on the floor, on the seat, in the baggage compartment, on the instrument panel, and piled so high there wasn't even room left for him to sit down in the ship.

Captain Madsen told the story of the personnel in all the courier commands throughout

the country when he said, "CAP courier pilots are civilians who have left their jobs to volunteer to do this great work and to contribute their part to the war effort. There are older family men who are exempt from the draft; there are others who are not quite able to meet the Army physical requirements, but are top-notch pilots in spite of this; there are the younger family men who have not yet been called to active service; and there are the younger pilots who are building up their time and experience so as to be more ready when they are called.

"And let's not forget the ground personnel, the men and women who help maintain the aircraft and keep the courier planes in airworthy condition—people like Technical Sergeant Dick Snyder and his fellow mechanics at the Denver maintenance depot who work long, hard hours keeping 'em flying. Although seldom mentioned, they are deserving of as much praise as the pilots. The courier service could never have succeeded without them."

While the CAP courier services for the First and Second Air Forces helped carry the ball for the AAF, other CAP couriers were rendering fast, dependable emergency service for the war industries in the East. Hundreds of the little planes and their pilots were on call around-the-clock, ready to transport vital parts and machinery to war plants to keep production lines rolling and prevent costly work stoppages.

Many of the courier stations were established under a financial arrangement known as the York Plan, named after the station at York, Pennsylvania, which devised it. Under this plan the local industries, united through the Chamber of Commerce, raised a fund to cover operational costs of the station for one month. All subsequent costs after this initial period were shared among the war plants on the basis of services rendered.

This same York station furnished two excellent examples of the work done by these industrial couriers. In each case the CAP was there when its help was needed.

During the summer of 1942, the York Safe and Lock Company was working feverishly 24 hours a day assembling guns. These were the "too little, too late" days. In August, however, the company faced the possibility of a temporary shutdown when a delivery of gun parts they were expecting was held up in Roanoke, Virginia, on a broken-down truck.

The company immediately got in touch with the CAP courier station, and Captain John Burleigh, station commander, personally volunteered his services. Hopping in his Waco, he headed for Roanoke, 280 miles away. Two and a half hours later, the parts were being transferred from the stalled truck to the airplane, and three hours after that the parts were at their destination in York ready for assembly.

A few months later, in January 1943, Lieutenant Irvin Hostetter of the same squadron was commissioned to make a flight to Grafton, Massachusetts, to pick up a 400-pound grinding wheel for the Oil Burner Company of York. The one being used was damaged and likely to break down entirely at any moment.

When Lieutenant Hostetter arrived at Grafton, he was informed that the wheel was not ready. He would have to wait several hours. The weather didn't wait, though, and about an hour after he took off with his cargo, he found himself fighting a severe New England blizzard—and with a 100-pound overload to boot. He couldn't get through and was forced down at Westfield, Massachusetts.

The next morning, although still flying in hazardous weather, he made it to Allentown and then to Harrisburg. From there the wheel was picked up by car and rushed to the plant at York. Despite the interference by the elements, the Oil Burner Company had its grinding wheel in 36 hours.

Similar courier missions were flown day in and day out, month after month, by CAP stations throughout the East. In New York, a CAP courier service under Captain J. Gordon Gibbs was formed with planes and pilots standing by from dawn to dusk at the Aviation Country Club Airport, Hicksville, Long Island. Courier operations increased steadily in the Empire State and before long practically every city had its courier station.

Charlotte, Burlington, and Asheville formed a triangle of bases in North Carolina to haul supplies in emergencies, and when the Fairchild Aircraft Corporation signed a contract with the CAP in that state to carry carburetors, magnetos, upholstery cloth, and instruments, a regularly scheduled route was set up between these bases.

Michigan, through the efforts of its wing commander, Lieutenant Colonel Ray Baker, and Captain Tom Falbo, courier operations officer, did an outstanding job for the many war plants located in that area. No less than twenty courier stations were established in this state, and they were kept plenty busy. During the twelve months from March 1943 to 1944, more than 170,000 flying hours were logged by CAP pilots rendering this emergency service.

A keynote in the general approbation of the work of these intrepid airmen was struck by C.R. Scharf, traffic director of the Chevrolet Corporation, when, after a CAP pilot had brought some vitally needed tubing to Detroit from Muncie, Indiana, and Warren, Ohio, to maintain production, he said, "Despite bad weather, the flight got through days ahead of shipment by any other medium. The job the CAP is doing through this courier service for war plants merits widespread recognition and generous praise from the manufacturers whose war work it aids."

Scharf wasn't just talking about the pilots. He was talking about people like Betty Johnson who did the clerical work at the courier station in Detroit; like D.K. Johnson, an automobile mechanic, who doctored the ills of the courier aircraft at the same station; and like Bill Mott, a groceryman by trade, but an expert meteorologist when on duty with the CAP. In the air or on the ground, it was Mr. and Mrs. Average Citizen who made the courier service a success.

Some gave more than their time and effort. Some gave their lives. Fortunately—almost miraculously in view of the hazards encountered—the number of deaths was relatively low. Seven died flying as Army couriers, most of them in the mountains of the West, and at least as many more lost their lives on emergency flights for the war industries in the East.

The AAF couriers flew on a seven-days-a-week schedule for approximately eighteen months, from late summer of 1942 until the spring of 1944, when the need for emergency transportation declined. But before the growing strength of the Air Force enabled it to take over courier duties, the Patrol's "flying pony express" in the West had transported 3,451,851 pounds of urgent mail, spare parts, and training aids for the Second Air Force—plus another 12,139 pounds of cargo for the Fourth Air Force. And in the East, sub-depot couriers flying for the First Air Force had delivered 73,921 pounds of cargo and 543 military passengers. Industrial operations also slackened during the final year of the war, but occasional emergency flights of an unofficial nature continued right up to the final bell.

The CAP couriers showed the way. They were forerunners of the hundreds of feeder airlines which are destined to serve the small communities of the nation in the years ahead.

ENTER THE CADETS

Modern Tom Sawyers and Huckleberry Finns have found a substitute for the leafy haunts on Jackson's Island, the raft trips down the muddy Mississippi, and the "pirate" rambles in the woods around Hannibal, Missouri.

In Mark Twain's legend-haunted Hannibal and in a thousand other cities, towns, and crossroads villages, youngsters in their middle teens have shifted their interest to airports and armories, to flights through the air in sky-jeeeps, to classroom and hangar-door sessions where they can explore every cranny of aviation under the guidance of seasoned fliers and skilled technicians.

The raft that Tom and Huck and their faithful Jim poled past Cairo, Illinois, and many another roistering river town, has sprouted wings to become a Piper Cub, a Taylorcraft, a Stinson Voyager, or some such cloud-buggy. As for the river, the sky is the river to everywhere and the airports and strips are the docks and landings along the way.

In December 1941, when the CAP itself came into being, the civilian founders of the organization foresaw the need for a cadet corps. Then, with this country locked in the do-or-die struggle with Germany and Japan, the need became far more urgent than had ever been visualized in time of peace.

As Colonel Earle Johnson put it, "When the CAP was founded, it was able to undertake no more than the task of mobilizing the civilian planes and pilots, adding auxiliary workers, organizing them into military units, and putting them to work on missions such as the coastal patrol and the courier service. But the broader plan of full-scale mobilization of civilian resources for the building of air power was never lost to view."

The necessity for an outfit like the cadets was voiced by a sixteen-year-old New York boy, Joe Sutherland, who addressed the following to Captain Zack Mosley a few months before the juniors were given their chance by CAP:

"I want to get started in aviation, but can't rely on my parents. They support me, and I think they have done enough for me already. I hope to get into ground-crew work. There is a better way to learn than to get into a club that only gives me magazines to read. Fellows like me want some guy to drag us down to a flying field, show us an engine, and say, 'Clean it and put it back together again.' Then we'd learn, and what we don't know would be drilled into us, so that flyng would be as plain as walking. Today's brats, as we are tenderly called, are tomorrow's pilots and technical men. So would you be kind enough to send me all the information you can about CAP?"

Impressed with the lad's obvious sincerity, Mosley forwarded the letter to National Headquarters in Washington. There, correspondence from all over the United States was arriving daily, asking for information, and requesting the CAP to organize the teen-agers into a corps. The letters were not written in vain. A new world—the air world—was opened wide to American youth on October 1, 1942. On that day the Civil Air Patrol began its cadet program under the supervision of Major (then Captain) Kendall K. Hoyt, AC, recruiting and public relations officer for National Headquarters.

At the outset, membership was held down in order to insure a solid foundation for the program. Each man in the CAP was permitted to sponsor a boy, and every woman member allowed to sponsor a girl. Youngsters from fifteen through seventeen years of age, in the last

two years of high school, were eligible, provided they were physically fit and up in their studies.

Another proviso, requiring that a cadet be native-born, and that his parents be citizens of ten years' standing, resulted in a rather touching letter, received at National Headquarters in the summer of 1943 from a boy in Cleveland.

"My name is George Puetz," it stated simply. "I was born 17 years ago in Hungary. I came to this country with my family in 1939 to visit my uncle. After the war broke out, it was impossible for us to go back. We got to love this country so much that we applied for citizenship."

"Ever since 1941 when we were attacked by the Axis, I have tried to help out. I was unable to get into the Armed Forces, so I did the next best thing and tried to enlist in the CAP cadets, but was turned down because I wasn't a citizen."

"As I see my friends, most of them already in CAP cadet uniforms, I can't help asking myself: why is this privilege denied to me? I look like any other American fellow—act, speak, and feel like one. Please make a waiver in my case."

The letter wound up:

"I've got sort of a personal score to settle with the Axis. You see sir, I've got two uncles in concentration camps in Hungary, not to mention my grandparents whom I haven't heard from for the past two years."

George Puetz' heart had spoken. He had, perhaps, more reason for preparing himself for war than any of his young friends in Cleveland.

Civil Air Patrol officials did not hesitate. They granted young Puetz his request, and the boy became a cadet—one of the best in all Cleveland.

The cadet program worked out by Captain Hoyt caught on. First junior squadron in the country was reported by the Minnesota Wing. Within a week after receiving the official directive and the accompanying application blanks from Washington, 39 students of Minneapolis Central High School were signed up. The cadets started training in the city armory almost before the ink on their applications was dry. Truth was, the parent squadron, No. 711-4, was at work building a cadet group even before headquarters came through with its October 1 announcement. And, by the middle of the month, another unit took shape at Cretin High in neighboring St. Paul. The Twin Cities were off to a flying start!

Within six months, more than 20,000 teen-agers in every section of the United States were attending weekly meetings in schoolrooms and armories, studying in groups of their own or side by side with senior members, and spending most of their weekends at the nearest airport. The cost to the government of recruiting the first 20,000 cadets was a little less than \$200—the amount spent by National Headquarters on its directives, applications, and membership cards.

In some sectors, cadet units were slow to catch hold because CAP officers were hard-pressed to keep up with squadron duties, and were reluctant to take an additional load. Experiences in several areas, however, showed that the addition of cadets actually made the officers' job easier.

Captain R.H. Jackson, commander of Wisconsin's Group 624, reported that the Madison squadron, faced with the loss of its quarters in local armory, was having a tough time keeping its members together. The addition of a cadet unit was like a shot in the arm.

"The effect was startling," said Captain Jackson. "Regular membership went up immediately and attendance greatly improved, simply because CAP members had a chance to teach others what they had learned. It made them keep on their toes to stay up with the youngsters on military matters."

Cadets were not assigned to flying duties. But their activities, whenever possible, were centered around airports, and close contact between seasoned airmen and the youngsters was promoted. It was always a thrill when CAP pilots took cadets up for orientation flights

to help them get the feel of flying. For many, this was a first experience—for most it was far from the last.

Although cadets were given only enlisted ranks with functional titles (squadron commander, flight leader, or section leader), their uniforms, except for certain identifying insignia, were identical to those worn by the seniors. Boys sported the Army enlisted-men's khakis and OD's, while girls were eventually allowed to don the trim WAC-style dress and blouse. Distinguishing markings on the cap, blouse, and arm carried the initials "CAPC" which set the youngsters apart from Army personnel, WAC's, and senior CAP'ers.

The courses of instruction given to cadets were the same as those for all CAP members. Until August 1944, the teen-agers used the training directives issued by headquarters. At that time, however, the AAF developed and distributed a streamlined "Pre-flight Study Manual for Civil Air Patrol Cadets." Easy to read and full of photographs, drawings, and four-color layouts, the manual was a natural.

Covering more than 30 pre-flight and military subjects, the titles and descriptive text were highly intriguing. Meteorology became "Weather in the Making" and navigation was headed "How to Find Your Way in the Sky."

"Purpose of the book," said Colonel Johnson at the time of publication, "is to teach basic principles so that CAP cadets who advance into the Army or civilian flying will find it easier to round out their knowledge and become competent airmen."

Many of the wings went even further. In Michigan, gunnery turrets made a hit with the youngsters, and several squadrons incorporated pistol marksmanship into their training program. These extras helped keep the cadets keenly interested.

A customary procedure for CAP units was to allow credit for pre-flight courses taken in schools, so as not to repeat instruction already received. In some states—Florida and Arkansas were first—the process was reversed when the school heads authorized county boards to give high-school credit to pupils who had completed the CAP courses in meteorology, navigation, and the theory of flight.

Reports coming in from the wings a few months after the kickoff were encouraging. But two recurring problems confronted many CAP units as the program grew by big jumps during the first year—drill halls and instructors. Armories or schools with suitable facilities had to be found so boys and girls on waiting lists could be called in to form new squadrons. As for instructors, units that had been in training since the beginning of CAP had often developed their own talent, but not every outfit was self-sufficient. In some of the smaller places finding qualified teachers was a tough job. It usually took a thorough canvass of the community to unveil citizens qualified to teach such subjects as Morse code, airplane mechanics, and first aid.

Of all the men who volunteered their services as instructors, none felt his responsibility more, or spent more time with his eager pupils, than a hard-working aviation enthusiast from New Orleans, Felix Arceneaux. Before taking his place as a major on the Louisiana Wing staff, Arceneaux endeared himself to hundreds of boys and girls who comprised the cadet units in and around the Mardi Gras city. To them he gave unstintingly of his time, his effort, his knowledge.

This dark-complexioned, rugged little man, 40 years old, was indefatigable—a whirlwind in action. After spending his days at the rather mundane occupation of repairing and installing refrigeration units, he could be seen each night at any one of the New Orleans schools or armories teaching the youngsters all he knew about aviation. And on the weekends, he'd be in the center of a crowd of enthusiastic youngsters gathered around an airplane at one of the city's airports explaining, demonstrating, and answering questions.

But his one burning ambition could not be fulfilled without the aid of Father Time. His eyes lighted up when he thought about it, and a slow smile spread across his face. "I got two kids of my own who are crazy about airplanes—just like me. But they're too young. I can't

wait until they're old enough to fly."

During the war, pre-induction training was the most important phase of the cadet program. It was designed particularly for future Aviation Cadets, and afforded scores of young men with the sort of headstart that often made the difference between being washed out and obtaining their coveted wings. It helped the future doughboys, too, by giving them a taste of military life before they left for camp. Password for the period was: "The battle of training, like the battle of production and the battle of transportation, begins in your own home town. Win it there."

The files of every unit in the country contain letters attesting to the success of this program.

"I have the CAP to thank for the pilot's wings I'm wearing today," wrote Air Force Lieutenant Walter A. Miller in a letter to his squadron at Harrisburg, Pennsylvania. "Not one of the cadets in my class who received CAP instruction failed to pass, although other candidates were being washed out right up to the final day."

Another former cadet, Otto Baudner of Meriden, Connecticut, told his buddies, "At Sampson Naval Training Station, you have to know how to drill. More important, you have to take orders with no questions asked. You are also required to know airplane recognition and general orders. Since this was old stuff to me, they made me a platoon leader in charge of 64 men on the drill field. How did I get there? There is only one answer—CAP training."

Private Alexander Auda, a former cadet in Michigan, was assigned to an AAF radio school and amazed his instructors by tapping out 26 words per minute in code after only ten hours of Army training. The required speed following a 170-hour course in only fourteen words per minute.

Beginning in the summer of 1944, when 9,000 cadets spent from ten days to two weeks at many of the leading AAF bases, and extending up through the present time, thousands of boys have been afforded a preview of Army life through CAP's summer encampment program.

Going to camp is the big thrill of the year for the juniors. It's the payoff for hundreds of hours of studying, drilling, and staying in the groove. Those who are selected are the top-notchers—scholastically, physically, and mentally.

But their camp life is no picnic nor is it intended to be. Theirs is a soldier's life from the moment the bugle tumbles them out of their bunks in the morning until "Taps" sounds solemnly at night.

The workout given cadets at Truax Field, Wisconsin, in the summer of 1945 is typical of the cadet encampments at AAF installations past and present. Here, days were crammed with "Hup-tup-thrup-fouah," expeditions along dusty roads, extended-order drill over hill and dale, creeping and crawling through dense woods and thick brush, and hour-long doses of grunt-and-groan calisthenics.

The bane of the cadets' existence was the gig system. An open pocket flap, a wrinkled blanket, failure to salute—and an unfortunate young man would find himself with a rifle on his shoulder walking off punishment tours over the weekend while his buddies relaxed.

At Selfridge Field in 1945, where the Michigan Wing's cadets wrestled with one of the heaviest schedules loaded onto any junior outfit in the country, the discipline was especially stiff. One night, the CAP Officer of the Day, Captain Larry Smith, making his rounds after "lights out," entered a particular barracks and flashed his light up and down the aisle.

"What's this?" he exclaimed.

"This" was a shocking sight. Shoes, which should have been placed neatly in rows under each boy's bunk, were scattered all over the floor from one end of the barracks to the other.

"Somebody's gonna pay for this." The captain stumbled toward the light switch. Just as he reached it, a boy—who evidently had been playing possum—sprang from his cot.

The OD's flashlight focused on the cadet—a lad of seventeen with big brown eyes and

freckles. The boy snapped to full attention, his bare feet pointing out at the prescribed 45-degree angle.

"At ease!" the officer snapped. "Now, Mister, what's this all about? Did you men forget today's lecture on neatness in the barracks already? Look at this mess!"

"No sir, yes sir, I mean—" The cadet stopped in confusion.

"You can do better than that, Mister. Speak up."

"Yes sir. You see, sir, it wasn't us—that messed-up floor, I mean. We been playin' with the pup an—"

"What pup? You mean a dog?"

"Yes sir, only he's just a tiny puppy and he likes t'play with shoes. There he is now, sir. Down at your feet."

Captain Smith lowered his flashlight. A little brown and white ball of fur was looking up mockingly at him with his forepaws on his leg.

The captain swallowed a smile. "Okay, Mister, hop back to bed. But I want this barracks in perfect condition by inspection time tomorrow morning."

The OD scooped the pup into his arms and left.

At Turner Field, near Albany, Georgia, the top event scheduled for the cadets in 1945 was a hop in a B-25. This made up for all their hardships. This was an opportunity worth waiting for.

Two boys were assigned to a ship, each fully equipped with flying gear and parachute. On the first leg of the flight, one would sit just behind the co-pilot's seat while the other occupied the navigator's position. On the way home they'd switch places.

It was excellent experience. They were at the pilot's elbow as he checked the awesome array of buttons, switches, and instruments. They could watch how he handled the controls on take-off and landing. And while they were in the air, they could relish the thrill of knifing through the sky in one of the Air Force's most formidable medium bombers.

Ed Danforth of the *Atlanta Journal*, who talked to cadets returning from two weeks at Turner, commented: "The boys came back air-minded, sun-burned, and feeling like men all of a sudden."

Cadets do more than attend classes and go to Army camps. They take part in non-flying missions of all kinds. When there's an airstrip to be cleared off and leveled, a clubhouse to be built, a ground search mission to be carried out, or a flood levee to be repaired, cadets pitch in and help. They've shown their stuff, too, on dozens of plane-guarding assignments, braving long hours of monotony, drenching rains, and howling blizzards to protect wrecked or grounded aircraft.

When a windstorm swept through Little Rock, Arkansas, a tent city set up for an Army air show was leveled, and authorities were ready to cancel the affair. But local CAP members, about half of them cadets, turned out 600 strong to repair the damage. They worked all day and all night. The next morning the show started on schedule.

And there was the occasion at Rocky Mount, North Carolina, in the autumn of 1944 when a commercial pilot carrying two charter passengers aboard his Cessna found himself faced with a forced landing in darkness.

Cadet Sergeant Ralph Gardner was sitting on the porch of his home inhaling a lungful of night air before going to bed when he heard the coughing and spitting of an airplane fighting to stay aloft.

"Hey, that boy's in trouble."

Gardner raced down the street and roused out four of his cadet buddies who lived nearby. One of them phoned the airport to report the emergency, but there was no answer.

"Nobody's there," he informed his friends.

For a minute the kids were stumped. Then Cadet Roy Evans, another of the foursome, got an idea. "Say, I know the night watchman at the asphalt plant near the field. He's got a

car. Let's get him to drive over there and flash his headlights on the runway."

"Swell. Good deal," they agreed.

Up in the plane, the pilot groping desperately through the blackness for a spot to land, was rewarded when two thin fingers of light pointed out a small runway. Turning quickly for a short approach, he came gliding in for a bumpy but safe landing.

Four excited boys clustered around the plane as it rolled to a stop.

"Nice goin', Mister," yelled Cadet Gardner.

"Nice goin' yourself, kid," answered the pilot. "You fellas pulled us out of a tight spot."

The practice of granting flight scholarships to the cream of the cadet crop, is a latter-day wrinkle which continues to stir up enthusiasm among youngsters in scores of communities. Pennsylvania's 2nd Group first came out with a scholarship plan in November 1944. Pace-setter of the group was the Reading squadron, which raised \$6,500 through the proceeds of a benefit dance and contributions by merchants and civic organizations. And it was a Reading cadet, dark-haired Sergeant Alfred J. Bashore, who first soloed under the program.

In early 1945, when the CAP was gunning for an enrollment of 250,000 cadets, each state was assigned a quota by National Headquarters. Utah, New Hampshire, and Rhode Island led the parade with quota percentages of 90, 80, and 70 per cent respectively.

Utah's Wing Commander, Lieutenant Colonel Joe Bergin, tied in the cadet membership drive with the state airport program, and despite the fact that great distances separated towns in this state, he was able to stir up strong support in many off-the-track communities through this tie-in.

In New Hampshire, Wing Commander John Brown prevailed upon prominent individuals in each newly tapped community to lend their support to the program. This resulted in many a going cadet squadron throughout the Granite State.

Lieutenant Colonel Norrris W. Rakestraw's Rhode Island Wing experienced slow progress at first due to parental misconceptions concerning the military side of the youth program. Cadet enrollemnt increased fourfold, however, after speakers made the rounds of schools and circulated material which fully explained what the CAP was trying to do.

Closely allied with the country-wide civic interest in the cadet program was its popularity with some of the leading church and welfare officials concerned with combating the alarming rise of juvenile delinquency. J. Edgar Hoover, the FBI chief, was one of its most outspoken supporters. During the war, Mr. Hoover wrote in a national publication:

"The parents of young people who belong to groups such as the Civil Air Patrol Cadets have much for which to be thankful. A properly conducted and supervised program aimed at encouraging wholesome recreation of a constructive and instructive nature creates an almost insurmountable barrier against the multiple influences of crime."

The answer was simple. CAP cadets were too busy learning about aviation to become involved in scrapes with the law.

CHAPTER 9

INTO THE AAF

When the Civil Air Patrol became an auxiliary of the Air Forces by Executive Order on April 29, 1943, this fledgling group of civilian pilots had grown into a well-knit organization numbering 75,000 members and was already an established part of America's wartime scene.

"Flying Minute Men" of the coastal patrol were winging out of 21 bases up and down the East Coast and along the rim of the Gulf of Mexico, keeping eyes peeled for the rapidly diminishing undersea raiders they had helped to subdue. Along the Mexican Border, from Brownsville, Texas, to Douglas, Arizona, fliers of the Southern Liaison Patrol were swooping low to ferret out suspicious movements on both sides of the international boundary. Bottleneck-breaking flights by both military and industrial couriers had been commonplace for almost a year, while missions for the Second Air Force in the mountainous Western states were linking more and more of the AAF's widely scattered installations. Some wings were flying forest patrol; others, particularly in Utah, Nevada, and Colorado, were specializing in search and rescue operations over some of the world's most rugged terrain. Meanwhile, tracking for anti-aircraft guns and searchlight batteries was already underway in the New York area and was soon to expand along both coasts.

All around the states, the former Sunday pilots wearing the silver buttons of the CAP on their Army uniforms, were acting as the air arm of the Red Cross, performing hazardous mercy missions, assisting in local blackouts, testing air-warning systems, and sparking bond drives. Wherever planes and pilots could fit in—be it on scrap hunts or Army ordered missions far at sea—the CAP was doing a man-sized job. Al Williams, the famed flier and aviation columnist, had dubbed the volunteer airmen "the Continental Army, 1942 style." Now, in 1943, this definition became officially correct.

Changes accompanying the shift from the Office of Civilian Defense to the Air Force were few. The uniform remained the same, no radical change in policies was forthcoming, and Colonel Earle L. Johnson's national staff—comprised of AAF officers to begin with—remained intact.

The increasing military flavor of such operations as the anti-submarine patrol, the watchdog activities along the Mexican border, the courier service for the Army, and the newly developed towing and tracking operations for ack-ack batteries had much to do with bringing about the CAP's auxiliary status. For more than a year, the patrol had operated without priorities for flying equipment and replacement parts. Planes as well as men were showing unmistakable signs of wear. Because the organization was tagged as civilian in spite of its many government-ordered missions, it didn't rate a priority over any sort of military activity. Mechanics at CAP bases were becoming accomplished innovators; in some cases, veritable magicians. They were keeping in the air planes that wouldn't have been allowed out of the hangar in normal times. Even so, aircraft were being grounded through the lack of small but irreplaceable parts. Once the CAP was under the control of the AAF, flying equipment and new engines came through more readily.

Tours of active duty on such missions as border and coastal patrol continued to call for a minimum of three months' continuous service. At the outset of the active duty missions in 1942, 30-day enlistments had been accepted. Within a few weeks, however, it became ob-

vious that a man who was around for only a month couldn't possibly be broken in and acquainted with the technical requirements of his job in time to give effective service. So the 30-day minimum was upped to 90 days—and the majority of the pilots, observers, and mechanics signed up for six months, a year, or for the duration.

Another change, if a minor one, was the shifting of National CAP Headquarters from war-crowded Washington to offices at 500 Fifth Avenue in New York City.

At the time of CAP's transfer from OCD to the AAF, the war was looking up for the United Nations. From hedgelined meadows in England, American "Forts" and "Libs" were blasting Hitler's factories by day, and British "heavies" were leaving their calling cards by night. On land, the Allies were bouncing back after a year of disastrous defeats and desperate holding actions. Yanks under General Dwight D. Eisenhower had entered Morocco and Algeria the previous November and had joined forces with General Sir Bernard L. Montgomery's 8th Army. Together they were chasing Field Marshal Erwin Rommel's famed desert fighters out of Africa. The "Fox" was in headlong flight, and the shattered remnants of his "Afrika Korps" were to be rounded up on Cape Bon just two weeks later, setting the stage for the invasion of Sicily and southern Italy.

In the Pacific, where the Japs had been top dogs through most of 1942, Allied forces were on the long road back. Guadalcanal, invaded the preceding August, had finally been mopped up in early February, and the grueling New Guinea campaign was in bloody progress. The first steps had been retraced in the sequence of island-hopping operations destined to end two years later with American troops roosting on Hirohito's front doorstep—Okinawa.

But the mainland of Europe was still Hitler's walled castle, and the invasion of Normandy was yet in the blueprint stage. German boots goosestepped the length and breadth of the continent, from ruined Calais to within striking distance of Stalingrad, the Russian stronghold 1,300 miles from Germany's eastern frontier.

Hundreds of thousands of America's young men had been welded into an air force that was second to none. Hundreds of thousands more were needed if the war were to be carried into the heart of Naziland and if the Nips' South Sea bastions were to be softened for landing operations. Air power was to be the key to victory—the key to the invasion of Europe that lay one year and 38 days in the future.

Out of this urgency stemmed one the Civil Air Patrol's most important assignments—the recruiting of Aviation Cadets for the Air Forces. Even with a reduction in educational and physical standards, regular agencies were hard-pressed to deliver the quotas of young men required to build up the reserve of fighter pilots and bomber teams necessary for the task ahead.

Lieutenant Colonel Willis S. Fitch, the AAF officer then in charge of the Aviation Cadet recruiting program, wasted no time in approaching Colonel Johnson to ask that the CAP take on the job of recruiting the seventeen- and eighteen-year-olds. He had reviewed the accomplishments of the CAP in many fields, and had taken special note of the outfit's expanding cadet program. With units in over 1,000 communities, the Patrol looked like the sort of grass-roots organization that could carry the ball all the way for the Air Forces.

Schools were closing down for summer vacation when the CAP shouldered its new responsibility. Boys who ordinarily would have been reached through study-hall announcements might have been missed without the CAP's help. Thanks to the organization's cadet corps and their regular weekly meetings, the campaign was carried on effectively through the summer of 1943. Publicity helped, too. Up to this time, the Patrol's cadets had been recruited without fanfare of any kind. But now, with the AAF in the market for volunteers, the CAP used full-page ads in papers and magazines, along with urgent radio appeals.

Large numbers of the cadets already enrolled with the Patrol were naturals for the Aviation Cadet Boards. They took screening tests and became members of the Air Corps Enlisted Reserve on reaching their seventeenth birthday. While awaiting their call to active service, they absorbed additional pre-flight training. Other youngsters, friends of the CAP cadets, jumped on the bandwagon. The cadet organization was mushrooming, and the AAF's recruiting drive was definitely on the upgrade. The two programs jibed.

"The first place to look for candidates," National Headquarters instructed the 48 wing commanders, "is in the ranks of the CAP and the CAPC. After that, contacts should be made with young men personally known to the members." At the same time, careful screening was advised so that only those best qualified would go up for examinations before the Aviation Cadet boards.

Much of the burden of finding talent for the AAF fell on individual squadrons and flights. In cities where no examining boards were permanently located, CAP units served as centers for the preliminary checking of candidates by CAP medical and training officers. In this way, boards were not burdened with applications that would have to be turned down for basic physical reasons.

One of the best local plans uncorked by CAP during that 1943 summer came out of Harrisburg, Pennsylvania. Squadron members armed with charts and pamphlets urged prospective candidates, following in the wake of a sustained barrage of newspaper publicity concerning the drive. Next step came at a regular meeting of the squadron in July when the head of the local examining board stepped into the picture and explained the advantages of AAF training to senior members, CAP cadets, and a group of outside prospects lined up for the occasion. An Army film on Air Force training was shown that night following the officer's talk. At the end of the meeting, ten cadets signed up for the AAF, and a CAP photographer took pictures for a front-page spread in the local papers. Seven days later, eighteen young men were all set to go as the Cadet Board gave its first examination. Of this number, sixteen got over the initial mental and physical hurdles.

While this was going on, the Harrisburg squadron was making additional contacts. Through door-to-door canvassing, window displays in the downtown department stores, another sizable batch of prospects was lined up. When the operations officer suggested a full-page ad in the city's newspapers, he was warned that he'd have a rough job convincing enough advertisers to sponsor it. A few days later, he had signed 24 firms and individuals who were willing to pay the cost of the ad. The big splash was cinched. In much the same fashion, units in all 48 states were advertising the recruiting drive, talking it up, and in many ways simplifying the task of Air Force examiners.

Free airplane rides became one of the most successful stunts used to round up Aviation Cadets recruits. One of the first outfits to furnish gratis hops was the Washington, D.C., squadron. The Congressional Airport at Rockville, Maryland, a few miles outside of the capital, had been closed by defense-zone restrictions for more than a year. It was now reopened for the express purpose of giving rides in CAP planes to applicants for the AAF Cadets. The capital squadron took over the field and set its own cadets to work cutting grass in readiness for the operation. A dozen planes were flown to Rockville from several Maryland airfields outside the restricted area. The first flights were given one Sunday in August to boys who had been trucked to the airport from the "Back the Attack" recruiting booth at the rear of the White House.

In New England cities, CAP planes were assembled for exhibitions, with plenty of advance tub-thumping. In Massachusetts, coupons were placed in newspapers. Eligible boys brought them to airports for a drawing and the winners were given rides. Although the majority of boys were air-minded, few had ever been aloft before. Just one trip usually did wonders to convince a young man that he wanted more of the same dish.

The sample ride procedure received a big boost when the AAF assigned 288 L-type planes to the wings during the ensuing winter for use in Aviation Cadet recruiting. They were allocated to the wings on the basis of cadet quotas, then split up among the squadrons. The use of the Army-donated ships not only helped to promote more rides, but also added an official flavor to the proceedings. During 1944 alone, 78,000 cadets and prospective recruits were taken up in these ships and 41,000 flying hours were logged by CAP chauffeurs.

On the West Coast, where civilian flying was at a complete standstill to a depth of 150 miles inland, scores of potential cadets were driven to Brackett Field, deep in California's interior, where the Old Baldy squadron of Ontario went to town with the six puddle-jumpers allotted them by the AAF. The planes could be flown only within a prescribed three-mile course, but that didn't seem to matter much. The Sunday maneuvers went over big in that section of the country. They not only helped the CAP line up more Aviation Cadets, they gave a number of fliers the chance to get their hands on the controls of a plane again.

A searchlight unit hatched by the Kenosha, Wisconsin, squadron was a potent crowd-catcher and a powerful aid to the recruiting drive. Accompanied by an Army officer, 1st Lieutenant Robert Zimmerman took the "lamps" for a junket around the state. As an added attraction, exhibits of bombs and shells were set on a trailer alongside the lights. When the two powerful beams, each with a brilliance of 2,000,000 candlepower, pointed probing fingers into the sky, people gathered from miles around and the streets were often so crowded that special police had to be called out to handle traffic.

"The only ones who weren't so pleased," observed Lieutenant Zimmerman, "were the merchants, because their stores emptied out the minute we turned on our lights. But they got extra business later from the people we attracted into town, so they didn't fare so badly either." The searchlight display was always followed up the next day by a recruiting caravan. Hundreds of applicants were uncovered in Wisconsin by this one-two punch.

With reopening of schools in the fall, the CAP exerted added pressure. Officers worked through high-school principals to explain the Aviation Cadet program to eligible students. And via parent-teacher associations and athletic directors, every school was supplied with recruiting literature. Efforts were made—usually with success—to sign up campus leaders such as the captain on the football team, the class president, the star shortstop on the baseball squad. Returned AAF pilots and crewmen, their blouses blossoming with decorations, featured many of the school sessions and shared the spotlight with AAF films and a CAP speaker. School and community ceremonies were set up for the presentation of silver wings to boys accepted in the Aviation Cadet Enlisted Reserve. Where parental objections had to be overcome, patrol members entered homes and talked things over with doubting mothers and fathers.

At the same time, steps were taken to enlist the support of civic groups—many of which were already actively engaged in pushing recruiting for the AAF and the other services. Inasmuch as the average CAP unit overlapped in membership with most local organizations—and since the goal was the same—there was never any conflict between the CAP and other groups.

The California Wing, utilizing movie stars and all the fanfare that characterizes a Hollywood premiere, did a sparkling job. With CAP respresented by notables like Henry King, Robert Cummings, Brian Aherne, Tyrone Power, Andy Devine, Wallace Beery, and Jose Iturbi—not to mention such film lovelies as Carole Landis, Mary Astor, and Joan Fontaine—the Cadet Boards carried on a land-office business. During a period of less than a month in the spring of 1944, the wing handled more than 1,600 applications for the ACER. The commendation sent to Wing Commander Bertrand Rhine by Major General D. McCoach, Jr., commanding general of the 9th Service Command, was typical of the reaction of military officials in every service command headquarters. It read:

"I have been informed of the activities of the California Wing of CAP in the processing and testing of over 1,600 applicants for the Air Corps Enlisted Reserve during recent weeks. The value of your patriotic contribution in the procurement of these applicants for the Air Forces is most gratifying and is sincerely appreciated. The processing of the hundreds of 17-year-olds by the officers and men of CAP had contributed materially in meeting the goal established for this command."

Along with Aviation Cadet recruiting, a call for more WACs for the Air Forces was answered by the CAP. Out of the senior organization came many volunteers. Hundreds more were rounded up by the CAP recruiting machine. The AAF was grateful for the hand-picked, pretrained women and girls channeled into service through the Patrol.

When the big drive was over—the letup came in the summer of 1944—Aviation Cadets' quotas were filled for the time being and the AAF was well-stocked with reserve airmen. The invasion of Normandy that June was successful and our troops were pushing the German forces back toward the Rhine. Thousands of the pilots, bombardiers, navigators, radiomen, and gunners who furnished the air cover on June 6 and who later smashed the retreating Nazi columns with bombs and bullets, were youngsters initiated into the Air Force via the drill-fields, hangar lines, and classrooms of the Civil Air Patrol.

On resumption of the recruiting program in the fall, the CAP again provided the eighteen-year-olds who were being depended on to keep our sky armadas young and air-worthy. Gradually, with the end of the war in sight, the demand for Aviation Cadets diminished. The big test had been met.

General Henry H. Arnold called the recruiting of Aviation Cadets by the Civil Air Patrol "one of the greatest civilian contributions of the war" and added his "well done" to the commendations of all America.

CHAPTER 10

SEARCH AND RESCUE

From the early months of the Civil Air Patrol to the present day, civilian airmen have excelled in locating lost aircraft and have been responsible for saving the lives of dozens of survivors who might have died in wild, uninhabited wastelands. Up through the end of the war, CAP planes flew more than 25,000 hours on official search missions for the Air Forces. And this total does not include the hundreds of hours spent in hunts for lost civilian planes, or on unofficial flights for the military services.

Throughout the Rocky Mountain states, in desert country, in heavily wooded areas, and in swamplands, search missions have provided the CAP with one of its most challenging assignments. In Nevada, a well-drilled mounted squadron cooperated with air-searchers when aircraft were reported missing in the High Sierras; in the Florida Everglades, sled-like craft powered by airplane propellers—called “glade-buggies”—skimmed over the swamps to assist in rescues; and, in New Hampshire, ski and snowshoe troopers supplemented flying jeeps in winter operations.

“There is hardly any kind of search-and-rescue outfit that we can’t produce from somewhere,” said Colonel Blee at a time when these operations were at their height. “CAP units,” he explained, “are specially organized, trained, and equipped to handle the various types of search and rescue operations encountered in their respective areas.”

Flying low and slowly, circling like chicken hawks, or threading their precarious way up canyons and through steep mountain gorges, the light planes were excellent for spotting. The slower the plane, the more thorough the search.

Spotting from the air is strictly a job for local pilots and observers—men and women who know every inch of terrain and how it looks each season of the year. There are tell-tale signs that only a trained observer familiar with every aspect of local reconnaissance can read—a rift in the forest roof, the almost imperceptible traces of splintered timber, fragments of tail or fuselage. More often than not, observation is made even more difficult by the camouflaging backdrop of trees and underbrush, or the total destruction of a missing aircraft by fire or explosion.

In many cases, CAP airmen found wrecks that had eluded AAF pilots. Military fliers were usually from other parts of the country and lacked a year-round knowledge of the particular territory over which they were flying. Besides, their ships traveled too fast and too high to qualify for the needle-in-the-haystack hunting that was often necessary.

As the war progressed, the AAF came to recognize the value of these civilian searchers and seldom failed to contact the local wing or the nearest patrol base when one of their planes was missing. With thousands of AAF ships continually on training and cross-country flights, accidents were correspondingly numerous. Units were kept particularly busy in the Western mountain regions where treacherous down drafts and cloud-scraping peaks made flying dangerous.

Wartime search missions were under the operational direction of the AAF commander requesting the service. Pilots flew in privately owned aircraft on temporary assignment, and were compensated for expenses incurred only when on an authorized mission. In 1944, a ruling was passed limiting the number of planes on any one assignment to six—unless more

were specifically authorized by National CAP Headquarters.

Heroics have been commonplace among the civilian crash spotters, but for precision flying and unadulterated daring, one mission is particularly noteworthy.

It was midwinter, 1942, when an Army B-24, battered and beaten by a December blizzard, attempted a forced landing on the crest of Little Baldy, a 13,000-foot mountain in northern New Mexico, near Taos. Somebody aboard must have carried a rabbit's foot, because nine of the crew of ten came through. There were a few broken bones and plenty of blood, but nine were alive.

Two days later, the hungry, half-frozen survivors still viewed the white-blanketed Rockies from their sanctuary atop Little Baldy. They sat huddled together against the twisted fuselage of their messed-up Liberator, nursing a small fire and taking advantage of the protection it offered from the biting north wind.

They weren't exactly comfortable, but they were feeling better. That morning—it was a Tuesday—a B-17 had spotted them and had circled far overhead for nearly half an hour. The men in the bomber tried to hit them with rations and blankets, but the Fort was flying too high and the supplies had missed by at least half a mile. The crewmen were still hungry, still cold. More help would be coming, but when?

Suddenly, around noon, the boyish-looking radioman of the B-24 pulled himself to a standing position and cocked his head skyward. "Am I right? Any of you guys hear a ship?"

The others strained their ears. Above the whine of the wind, the GI's could recognize the unmistakable putt-putt of a small plane.

"You're not dreamin'," exclaimed the uninjured co-pilot, jumping to his feet.

"There he is," cried another, pointing to a tiny blue Taylorcraft that seemed to be floating toward them out of the northwest, not more than 150 feet over their heads.

With relief in sight, renewed strength entered tired bodies, thawing out stiff muscles. The six crewmen who could navigate under their own power waved their arms and yelled like old grads at a homecoming rally.

Captain Norman Kramer, squadron leader from Alamosa and pilot of the approaching plane, heard his observer, First Lieutenant Arthur A. Mosher, say, "There they are, Norm. Over there to the right."

"Good deal," responded Kramer. "Get ready to drop the supplies."

The Taylorcraft circled lower and lower. As it passed directly over the grounded Liberator, Mosher dropped rations, cigarettes, and blankets. At the same time, Kramer cut his engine and stuck his head out of the cabin. "Hang on down there. Help is on the way!" he yelled.

The little ship returned to base and Kramer, after reporting the exact location of the missing bomber, took off with another load. Approaching Little Baldy again, Kramer noticed a thin saddle of ground swept bare of snow by the stiff winds. It gave him a sudden idea.

"I'm going to land on that saddle, Art," he remarked to his observer in a manner deceptively matter-of-fact. "How about it?"

Mosher nodded, gulped, "Okay by me, Norm."

Kramer headed his Taylorcraft into the wind and "dragged" the ridge, struggling to keep the ship on an even keel as the unruly drafts pushed unevenly on the wings. At the final instant, just before the wheels made contact with the ground, Kramer throttled back. After a short roll upgrade along the saddle, the aerial flivver came neatly to a stop.

A conference between the CAP fliers and the incredulous crewmen ensued. Kramer and Mosher looked the situation over, took aboard a sizable load of guns and equipment from the B-24, and took off—this time downhill.

Mosher glanced at the altimeter as the tiny craft lifted itself into the air. It read: 12,800 feet. As far as he knew, that was as high as any light plane had ever landed and then taken off.

Six more times that afternoon, Kramer and a succession of observers returned to the private "landing strip" far above the timberline with badly needed supplies. Meanwhile, a rescue party had started on the long, tortuous climb up the mountain. One more night remained for the boys on top of Little Baldy as darkness forced their rescuers to make camp about halfway up the steep grade. The next day, the nine survivors and their dead companion were removed from their Olympian perch.

Said one of the crewmen later in praising the feat of Captain Kramer, "It was about the only thing that could have sustained us through another night in that cold."

Persistence, ingenuity, and a certain amount of plain, ordinary luck have been the ingredients of some of the toughest CAP searches.

When an Army P-47 took off from Biggs Field, Texas, and failed to show up at its New Mexico destination, Captain Bill Mueller, commander of the 15th Texas group, took five planes from El Paso, and five more from Roswell, New Mexico, on the mission.

More than 300 hours of searching proved fruitless. Before taking off for the final try, Mueller played a hunch. He loaded some rocks in his plane, took pencil and paper along, and started out. His idea was to enlist the aid of the occasional parties of sportsmen he had seen on previous flights over his assigned area. As he spotted these men, he dropped rocks with notes attached, requesting the hunters to be on the lookout for possible airplane wreckage.

Mueller's hunch was right. One of the men picked up a message and a short time later glimpsed a shiny scrap of aluminum that would not otherwise have attracted his attention. The missing plane, which had crashed straight down and had left no tell-tale blemishes on the terrain, was just a few yards away.

Some searches continued for weeks and months until the wreckage of a plane, swallowed up by trees or snow, was uncovered.

The Colorado Wing engineered a nine-month hunt for a B-26 which disappeared somewhere between Salt Lake City and Pratt, Kansas. There were few clues; only one radio report had come in from the pilot following his take-off, and it failed to specify the true course of the craft.

Civil Air Patrol searchers accumulated facts and rumors as the months rolled by. Finally, late in July 1944, a plane piloted by Lieutenant Jim Gregg, with Lieutenant F.K. Wilson as observer, was dispatched to an area where careful calculations indicated where the medium bomber may have met its doom. Eight hours later, the two men spotted their quarry. It was in the high country near Vernal, Utah, where it had been hidden by snow all winter.

Even before private flying restrictions were eased on the West Coast, California CAP fliers were often called on to help locate missing military aircraft in the mountainous inland areas. Searches were undertaken at various times all the way from the Imperial Valley, near the Mexican Border, to Santa Rosa, north of San Francisco, with the Californians racking a long list of successes. During the second week in February 1945, while on a search for a C-46, California crash-spotters located the wreckage of seven other Army and Navy planes that had been missing for some time. It was the most productive seven-day period ever recorded by CAP searchers.

In one case, a forest fire scored an "assist." While hunting a lost B-24 in March 1944, Major Charles Snow of Los Angeles, wing operations officer, and Lieutenant Frank Hasey of Santa Monica, were flying through Gaviota Pass in the Santa Barbara Mountains when they spotted a going blaze in a timbered area.

"We made a pass," related Major Snow, "to see whether the fire was attended or not. At the bottom of the canyon wall we saw an object which looked out of place, but we couldn't tell what it was. After about 12 passes, we decided it must be a plane. I called Santa Barbara Naval Air Station immediately and verified our discovery. We later learned that the plane

was an AAF AT-6 which had crashed such a short time before that it hadn't even been reported missing."

In spite of the fact that he had an artificial eye, Major Snow was one of California's best crash-spotters. Formerly a tree expert, he had learned to diagnose tree diseases by flying low over woodlands. With that kind of background, the Major could see more with his one good eye than most people could with two.

Solid planning enters into any search mission. Here's a case in point—the story of an operation performed by the Vermont Wing to locate the wreck of a Navy Hell-Diver which crashed on South Mountain near Bristol in October 1945.

Quick spotting of the plane was made possible by concentrating on regions where little agriculture was being carried on—it being reasoned that farmers would have reported a plane down in a well-settled section. A map of Vermont marked to show the areas of least population was used in setting up the mission.

As soon as the clouds lifted enough to reveal the terrain, the Navy plane turned up in one of these scantily populated areas. First to sight the long slash through the timber and the scattered bits of wreckage were Lieutenants John L. Laurenslager and Reginald Wilson, both of Rutland, who were crewing a Piper Cub. Six CAP planes took part in the search as hundreds of ground personnel plodded through the first snowfall of the season.

The "glades-buggies" of the Florida Wing enabled CAP rescue units to skim over shallow water into remote swamp sections on lost-plane searches. A somewhat glamorized expedition of this type was portrayed by Lieutenant Colonel Zack Mosley, then the Florida Wing Commander, in his "Smilin' Jack" strip. The heroics took place after a beautiful and shapely girl flier was forced down in the Everglades by a storm while flying over the alligator country. That sort of thing happened in real life, too, although the parties involved were not often so photogenic as Mosley's maiden in distress.

When planes or persons were reported missing, Florida fliers did the scouting and dropped supplies. Rescue teams in the "buggies" followed through on the ground.

Personnel for swampland searches were recruited from among men and women who spent much time in the Everglades and were acquainted with the problems of penetrating this lonesome muckland; one woman officer in the Miami unit made her living by hunting water-mocassins at night, deep in the Everglades. She milked the venom from the poisonous snakes, and sold it to the Army to be made it into serum.

Probably one of the best-drilled ski units in the country came from Laconia, New Hampshire. A simulated rescue of plane-crash survivors on a winter's Sunday in 1944 shows how smoothly they operated.

First, a plane on skis took off, located the "crash" and dropped a message to the nearest ground-crew headquarters. Receipt was acknowledged by a red panel, and the pilot headed back to the airport to load up with blankets and coffee. Within half an hour after the original sighting, the supplies were parachuted to a point 30 feet from the simulated wreckage. A combination ski and snowshoe crew then hurried off into the hills to set up first-aid facilities at the nearest feasible point, with small paper parachutes being employed by the spotter plane to direct the men on the ground.

Among other unusual rescue units was a Spokane, Washington, squadron that was trained to parachute to the scene of wrecks not accessible by other means. Since no accident requiring these drastic measures occurred in the Spokane area, the outfit never got the chance to prove itself on a bona fide mission.

The guarding of crashed planes, to prevent the removal of parts by souvenir-hunters or the disturbing of evidence which might reveal the cause of the accident, has always been a function of CAP ground parties, pending the arrival of Army MP's. Sometimes the civilians carried on after the military moved out. On occasions their vigil has been a lengthy one.

Members of an Ohio squadron, for instance, turned out in mid-January to guard an AAF plane which had made a belly-landing near Springfield. Since the weather was cold, a house-trailer was taken to the field to provide shelter. Members posted a 24-hour guard for several days until the plane could be dismantled and removed. In a somewhat similar case at Huntington, West Virginia, another AAF fighter sat in the middle of a pasture for weeks. Both senior members and cadets of the local squadron turned out for guard duty which added up to a total of 684 man-hours before the ship was flown off.

Most of the Western states produced smoothly coordinated search and rescue units, but none surpassed the techniques of the Nevada Wing. So efficient were the search procedures outlined by Wing Commander Eugene Howell of Reno that they were reproduced by CAP Headquarters and distributed to the other wings as a model. Besides the usual air-spotters and ground personnel, Colonel Howell's searchers numbered a mounted command, several ski detachments, and some motorized units.

Because of the scarcity of natural landing areas in the thinly settled sections of Nevada, the wing established ground units as important adjuncts to its flying squadrons. When a CAP plane located a missing military ship in the mountains or badlands, the place often could be reached only by foot or horseback. This led the Nevadans to organize a mounted command and a motorized command in regular squadrons paralleling the aviation units.

The CAP "rough riders," who numbered approximately 150 wilderness-wise ranchers, farmers, and businessmen, usually rode their own horses—well-groomed, sure-footed animals conditioned by long hunting treks to be thoroughly at home in the roughest sections of the state.

The know-how of the "Mounties" was augmented by a basic training course covering 108 hours of CAP training directives, plus cavalry drill, mounted extended order, and guard duty. An additional 41 hours of special courses were also taken, touching on such varied subjects as the packing of horses, map-reading and sketching, and judging distance by the clock-and-finger method.

Members of the swashbuckling crew wore Army cavalry uniforms with the CAP insignia and shoulder patch. All hands carried their own binoculars, sidearms, and compasses, along with a mass of articles like pack-saddles, picket lines, and mattocks.

Commanding Reno's mounted squadron was Captain Jack Layland, a slim and wiry campaigner with a lifelong affinity for horseflesh. A retired British cavalryman, Layland had soldiered in Ireland, India, and South Africa at the turn of the century, and had seen action with Canada's "Princess Pat" light infantry outfit in World War I. The Australian-born Londoner came across the border from Canada in 1920, first living in Minnesota, then moving farther west. He has been a familiar figure around Reno for the past fourteen years.

"Captain Jack," who sports a graying mustache and looks like the classic soldier of fortune, entered the CAP as a private in February 1942 and was shortly thereafter commissioned and made mounted squadron commander. In addition to going on every mission and furnishing the best in leadership, Jack was one of those instrumental in bringing 24 horses from Ft. Riley, Kansas, to use on patrol missions. Originally these Army cavalry horses were sent to Reno for the purpose of "riding fence" at the Army air base but the CAP found better employment for them.

The Nevada Wing had the advantage of men who were familiar with the area of the fourth largest state in the country. Wing Commander Howell, transportation chief for a power company, knew his agents throughout the state, and had traveled most of its passable sections himself. Jack Layland, Bob Miller, and other CAP officers were good horsemen, able to take care of practically any situation in the toughest treks through the wilderness.

In the usual search mission, the Second Air Force would notify Wing Headquarters at Reno of need for help in a given job. If they were required, mechanized and mounted units

were mobilized at once—often within a few hours after personnel were notified and told what equipment would be required for the trip.

The second step was the selection of a field headquarters. If necessary, an advance party was sent ahead to clear a landing strip, frequently in arid, uninhabited country. First, a scraper would be put to work to uproot sagebrush from the earth. Brush, boulders, and stones would then be cleared by hand. Following this, a drag would be attached to a heavy truck and the field leveled off as smoothly as possible. The Nevadans knew their road-building. Colonel Howell had twelve years' experience in rough-and-ready construction work and a number of the rancher members were accomplished road-makers by necessity.

In terrain like Nevada's, air and ground operations were interdependent. One could hardly function effectively without the other. The desert terrain acted as a bewildering, completely camouflaged background against which downed planes and Army suntan or olive-drab uniforms could be picked out with difficulty. The CAP sometimes found wreckage in high sagebrush by long and careful search of a given area. When a hot clue pointed to a certain spot, several CAP planes flew at various altitudes and combed it right down to the grass. Sometimes the civilians succeeded after the Air Force had searched and re-searched a particular section in vain.

Most of the mounted squadron's men had their own horses and were prepared to fit them for a journey into the hinterlands on short notice. The usual procedure was to load the mounts onto special trailers which were hauled by battered old CCC trucks as close to the scene of the search as roads would permit, at which point the horses took over. On occasions when the CAP searchers knew in advance that they could borrow mounts near the search site, they would leave their own horses behind and ride the local mounts. With horses to care for, there was always much necessary additional equipment. Sometimes more than 200 items had to be taken on a mission.

On some occasions the Mounties had to equip search-parties sent out from AAF bases. The GI groups occasionally made the mistake of starting a long trek through the desert or mountains with insufficient water, no blankets, and little food. If the well-equipped civilians hadn't lent a helping hand, chances are that the soldier searchers would have had a rougher time.

Improvisation was the mounted patrol's forte. They had an answer for everything.

On extended bivouacs far from base, the Nevadans sometimes ran out of water. But instead of sending trucks back to pick up a fresh supply, or detailing a pack-horse team for the job, Layland and his aides hit upon the idea of dropping chunks of ice from the air to parties in the field. The ice, parachuted in sacks, was partially shattered when it hit the ground. The men on the receiving end put the cracked ice into pails and let it melt into drinking and washing water. A similar procedure was followed in furnishing forage for the horses when the supply got low.

Speaking of aerial drops, air crews frequently tossed messages in containers to ground units. Accuracy was developed to a fine point by observers in the small, maneuverable planes. Once, during a combined plane-and-mounted mission in the summer of 1943, a message-container was plunked directly into the lap of one of the horsemen.

When bodies were recovered from wreckage or—on rarer occasions—when injured survivors were found, the mounted squadron was ready with special horse-borne stretchers. First to be developed was a litter suspended between two horses in a single-file arrangement. The second type, which injured men found more comfortable, was securely braced on top of a pack-saddle, where it rode in comparative smoothness out of the roadless interior to waiting ambulances at the rendezvous point.

Until two-way radio became the standard method of maintaining air-ground contact, carrier pigeons were the only sure-fire communication between field parties of CAP and Reno

headquarters. One mission where they came in handy followed the crash of an AAF transport in the Desatoya Mountains in 1943, from which searchers removed eleven bodies. The area was so remote that no telephone or telegraph lines were within 45 miles and the radio in use at the time couldn't reach home base. The pigeons got through heavy storms with maps of the territory when most air traffic was grounded.

Staff Sergeant W.M. Burns, Reno pigeon-fancier and one of the best trainers of racing pigeons for CAP duties, started working with the birds when they were four weeks old and continued as long as they were used as couriers by the search-and-rescue parties. Special containers were made to carry the birds on horseback or on ski-pack on rescue missions.

Picture-taking was effectively linked with the carrier-pigeon operation. Air observers frequently photographed the terrain. Then, employing a changing bag, they removed the exposed film from the camera and sealed it in a capsule which they attached to the pigeon's leg. On arrival at Reno headquarters, the film was rush-processed and, a few minutes later, enlarged projections of the photographs were ready for study.

Especially during the winter when the wreckage was partly covered with snow, or in swampy or heavily wooded areas where the terrain could baffle even a trained observer with binoculars, the importance of the photo enlargements was considerable. More than once, objects unseen by observers were located through photographs.

The Nevada outfit had to beg or borrow many of its supplies, such as blankets and mechanical items, from deactivated CCC units. Jack Layland did an astonishing job of foraging. He'd pick up supplies on his footloose wanderings around the state—things that ranchers and CAP members and friends everywhere could furnish. Once, early in the war, he came upon a former CCC camp that was being torn up. Layland pushed a hot call through to National CAP Headquarters at Washington and managed to get blankets, clothes, and other equipment turned over to his outfit. It was his biggest haul.

The Nevadans chalked up numerous successful missions, but the two that most Mounties remember best were not completely satisfactory.

The first came in January 1944 when air units combed 5,000 square miles of mountain country in eastern Nevada looking for a bomber missing from Utah's Wendover Army Air Base. Reno's mounted squadron was on the job, too, working out of field headquarters at Elko with a strength of 63 men.

After four days of futile searching in the below-zero cold, one of the planes reported what looked like the wreckage of the missing bomber in the crater of Ruby Mountains. Before dawn the following morning, a party of twelve left Elko to investigate the sighting. Three of the men were from the mounted unit, three from the ski patrol, and the other six were truck-drivers and radio men. A snowplow cleared the way through the falling snow to a ranch about 40 miles southeast of Elko, where the searchers were able to borrow two long-haired horses which had been turned out for the winter.

Leaving Captain Jack Layland and the rest of the party in the valley to handle communications, Lieutenant Bob Miller, manager of a Reno hotel, and Lieutenant Bill Canepha, a rancher, rode the horses toward the summit of the 11,500 foot Ruby Dome. After struggling for three hours over an undefined trail and through the deep snow, Miller and Canepha finally reached the top.

In order to get a clear look into the crater, which is more than ten miles across at some points, it was necessary to descend about 50 feet and then climb a rock ledge. Due to the fact that the wind had blown the snow over the hump and into the downgrade, the snow was so soft that it was impossible to move farther either by foot or horseback. Miller and Canepha tied their lariats together and fastened one end to the saddle of one of the horses and the other around Miller.

With the rope around his middle, the hotel manager rolled down the snowy slope to the

ledge, from which he was able to climb to a lookout point.

Miller's first words, once he got a clear view of the great pit, were, "There she is."

About five miles away, deep in the crater, he saw the outlines of the lost plane. He could make out what he thought were the wings, the shiny aluminum nose, parts of the fuselage, and even the tail. Due to the heat from inside the crater, there was practically no snow to mar the view.

But then Miller pulled out his field glasses and was promptly disillusioned. He had been deceived, much in the manner of the observer and pilot of the searching plane. The supposed wreckage was actually a rock formation bearing a remarkable resemblance to the real thing. The shiny "aluminum" nose was only a patch of glazed snow and ice, which glistened like metal in the bright sunlight.

Miller had seen enough. He climbed down from the ledge to the foot of the steep slope, fastened the rope around his midriff, and gave it a tug as a signal to Canepha that he was ready for a return trip. The horse on the other end of the line pulled him up through the soft snow to solid footing.

Bob Miller nearly came down with pneumonia as the result of his gymnastics, but that didn't stop him from going on many another mission once he got on his feet again. The lost bomber, incidentally, wasn't uncovered until some months later when spring thaws melted the snowy shroud that had settled over it.

The other memorable search followed the crash of a B-24 on a plateau 25 miles northeast of McDermitt, an isolated town near the Oregon-California line. The pilot and co-pilot, last to bail out of the Liberator, were picked up the day after the accident. The other six crew members were spotted from the air, stranded on a plateau that was all but impossible to reach from any direction.

The mounted squadron was called in, but horses were not brought along, as it was assumed they could be borrowed close to the rescue site.

Old Fort McDermitt, a cavalry post of almost Civil War vintage, became the base of operations. The outpost was inhabited by Indians—a rugged, self-reliant crew, according to Bob Miller. "They were dressed in real cowpuncher style, complete with chaps, bright shirts, sombreros, and neckerchiefs usually associated with the movie cowboy."

Jack Layland, Bob Miller, and Art Whitney had an idea that the Indians could give the CAP some real help so they got in touch with leaders of the tribe through the government agent. Early Monday morning the natives assured Layland and his men that with their horses, buckboards, and knowledge of the countryside, they could bring out the six marooned crewmen by sundown that very day.

Within an hour, Indians began filtering out of the woods into a large clearing, emerging eerily from the chaparral and trees in ones and twos. They were leading horses and they had two ancient buckboards with them.

Before midday, everything was set for the rescue party to set out for the ridge where the downed crewmen were waiting. Then up popped a pair of Army officers who promptly upset the apple-cart. They told Layland that they would handle the rescue and that they didn't require help.

"Well," Captain Jack recalled with a chuckle, "they nearly had an Indian war on their hands. The local lads were all set to go in there and take out the six men. They were confident they could do the job fast and well. When they heard they weren't to be given the chance, they were really burned up."

With the war's end, the Mounties banded together to form an outfit known as the Nevada State Rangers—an organization available to the CAP in event of real need. As rangers, they have no officially required duties, but serve as an emergency unit capable of a wide assortment of services.

The record posted by the Nevada Wing and by search-and-rescue teams in the neighboring Western states—notably Utah, Colorado, Wyoming, New Mexico, Arizona, Idaho, Montana, Washington, and California—is proof that the frontier spirit of the men who first settled the West is far from dead. The old-fashioned self-reliance and workmanlike pride of the wilderness-conquering pioneers also belongs to modern-day Westerners with the CAP emblem on their arms.

Searches from the sky have not been limited to aircraft spotting missions. Sometimes they involve fishing boats adrift in the Great Lakes; often they are concerned with hunters lost in dense woods or wild mountain areas. And there's a sheepherder out in Utah who has reason to thank the CAP. He had been wandering in circles for five days and nights without food or water when he was rescued from dune-covered White Valley by two men who had followed his tracks in a Taylorcraft.

Up until mid-1945, the Civil Air Patrol searched extensively for missing Army aircraft. But with the end of the war, the volume of accidents dropped and the Air Forces, with hundreds of pilots back from overseas, organized a nation-wide search-and-rescue service. Even so, the CAP is still called in from time to time to lend a hand with some of the tougher missions. And searches for civilian planes have remained one of the more important CAP services.

Well-organized search and rescue activities, in the opinion of Colonel Johnson, are vital to the growth of the light plane.

"One of the requirements for the development of civil aviation is that any pilot may take off from any point with the assurance that someone will look for him if he fails to reach his destination," he said. "That's where CAP comes in."

CHAPTER 11

SMOKE-CHASERS

An ominous wisp of curling blue-white smoke appeared in a hidden canyon between two mountains in one of America's vast forest areas. Thirty minutes later the blaze grew and spread, and the smoke became a billowing cloud rising high above the mountains. A forest ranger, perched in his control tower many miles away, sighted the smoky column through his field glasses. He notified Forest Service Headquarters immediately, and all available personnel and equipment started out to fight the fire.

But they were too late. By the time they got there, the once-smoldering brush fire had developed into a forest conflagration. The flames leaped high as they jumped from tree-top to tree-top, consuming acre after acre of valuable timber. Amid the roar and rumble of crashing timber, the firefighters bent to their tasks. In almost unbearable heat, their bodies glistening, their faces streaked with sweat, they labored for weary hours until the blaze was brought under control. But what once had been a mountainside of healthy, growing trees, green and beautiful against the sky, had been transformed into an ugly, charred, blackened wasteland.

No matter how thorough the ground coverage furnished by pre-war conservation services, fires frequently gained footholds and grew into roaring holocausts that devoured huge stands of America's finest timber. But beginning in 1942, when pilots and observers of the Civil Air Patrol joined in the never-ending battle against forest fires, a new chapter in conservation history commenced to unfold. From the pine woods of Maine to the redwood groves of California, the CAP's inland patrols helped to save thousands of acres of valuable timber. Just as important, they introduced fire-reporting techniques that are being employed today.

Although the great-grandfather of all forest patrol planes was used in 1915, only a handful of states employed light aircraft regularly for this purpose before World War II. In some regions, during the spring and fall danger seasons, private cabin planes were chartered to transport rangers and equipment to the scene of a particularly devastating fire. For the most part, however, the value of the puddle-jumper as an aerial eye for the state forestry services had been overlooked. But when the wartime emergency, with its consequent drain on manpower, called for drastic steps to protect America's timber supply from its ancient fiery bugaboo, the Civil Air Patrol's offer to spot trouble from the sky was welcomed.

Several incidents helped to sell the idea to forest service officials. At Alexandria, Virginia, early in 1942, a CAP pilot on a practice flight sighted a growing blaze in a patch of woods near the city. He streaked back to his base and called the fire department, which extinguished the blaze before any serious damage had been done. In North Carolina a few weeks later, CAP Wing Commander J. M. Horner, Jr., was called to the governor's office in Raleigh to aid authorities who were trying to check a serious fire that was raging in the Pisgah National Forest. Horner hurriedly contacted a pilot who lived in the Pisgah area. Within an hour, two forest rangers were cruising over the burning section in a Waco. Their observations, relayed to firefighters on the ground, helped materially in bringing the blaze under control.

When information of these and similar incidents reached the office of the United States

Forest Service in Washington, D.C., top-ranking government officials became convinced of the value of the Civil Air Patrol in this work. They called on National CAP Headquarters for preliminary conferences regarding plans to create an air arm of the ground firefighting services in those states with vast forest areas.

A prominent figure in the Washington negotiations was Major Jack Vilas, former Illinois Wing Commander, who had the distinction of being the first aerial fire warden in the world. In 1915 he flew forest patrol over timber areas in northern Wisconsin. Knowing the problems entailed in both firefighting and flying, Major Vilas was the ideal man to represent the CAP in the consultations with the Forest Service.

Major Vilas had been about 27 years ahead of his time in this matter of aerial patrol to seek out and prevent fires. Excerpts from a letter he wrote in January 1916, to Mr. F.B. Moody of the Wisconsin State Department of Conservation reveal a far-sighted appraisal:

"The efficiency of an aeroplane in spotting forest fires is without doubt as practicable as any use an aeroplane could be put to. I myself was very surprised with what ease a fire can be spotted and located, and there is no question in my mind but that the aeroplane will do away with the observation tower and the forest fire patrol men. It would be an easy task for a pilot with a good land machine to patrol three to four counties in a state each day . . . and as far as weather conditions are concerned, a pilot with a well-powered plane will fly in anything short of a gale.

"The only limitation I can think of is the lack of sufficient landing places in a thickly forested region. In this case a few clearings could be made at different places, depending upon the necessity of landing places."

Although Jack Vilas wrote that letter more than 30 years ago, it could have been written today. His efforts in the meetings with the forestry men led to a plan whereby CAP planes were to be on call for forest patrols in all parts of the nation. The CAP units in these areas were to work in close cooperation with the state fire authorities, and would be paid per-diem allotment in lieu of subsistence for all missions flown, plus a fee to cover the operating expenses of the airplanes.

In a memorandum announcing the plan to all wing commanders, CAP Headquarters observed:

"The danger of forest fires, whether by sabotage or by natural causes, must be guarded against with vigilance during this critical period. Timber is a strategic resource which must be protected. Fires in some forest areas would threaten power lines and other war facilities, and man-hours lost in putting out fires would be a drain on a much-needed labor supply."

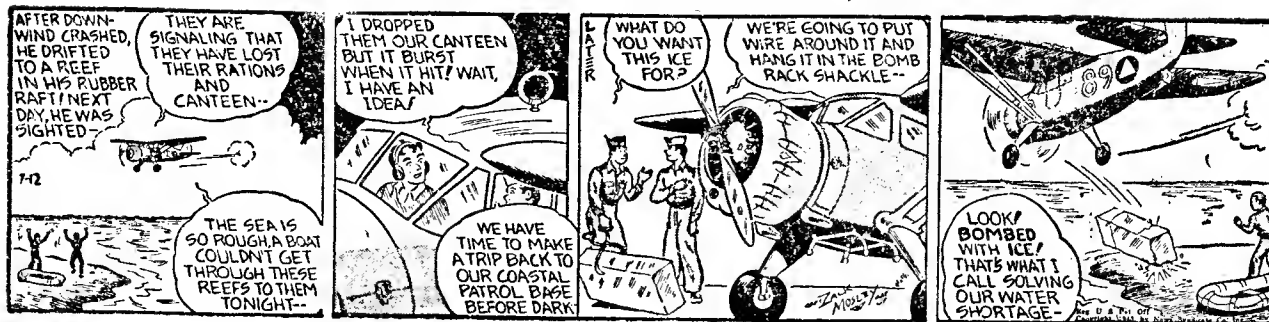
CAP wings in the states where forests were prevalent welcomed this new job. They knew that one man in flight could do the work of many wardens stationed at various points along the ground.

Mr. John A. White, New York State conservation commissioner, voiced the problems which beset all state firefighting agencies when, at a public ceremony inaugurating CAP forest patrol flights over his area, he said, "War has made it difficult to carry on our detection work. There are critical areas in some of the forest regions of our state. Because of the vast lumbering operations and the manpower shortage, they are real danger areas. Your fire patrol will, we hope, prove valuable. Now, more than ever before, eternal vigilance is the watchword in protecting our priceless forest resources."

Up in the Maine woods, work was begun quickly and, before the end of June 1942, three CAP patrol planes were being used extensively. Lieutenant Charles G. Chase patrolled the headwaters of the St. Johns and Penobscot Rivers in his Piper Cub; Lieutenant Raymond G. O'Donnell covered the Kennebec and Androscoggin River watersheds in his Aeronca; and Lieutenant Caldwell Sweet, Jr., flew over the waters of the St. Croix and Union Rivers in his Aeronca seaplane. The state appropriated \$6,600 to the State Aeronautics Commission,

SEARCH AND RESCUE

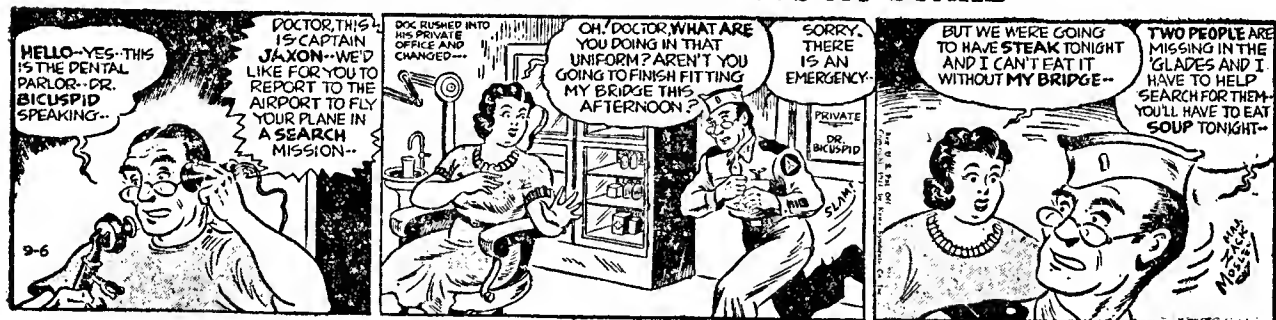
SMILIN' JACK—SOLID BROTHER, SOLID!



SMILIN' JACK—THE RESCUED NOW RESCUE



SMILIN' JACK—STEAK VERSUS AT STAKE

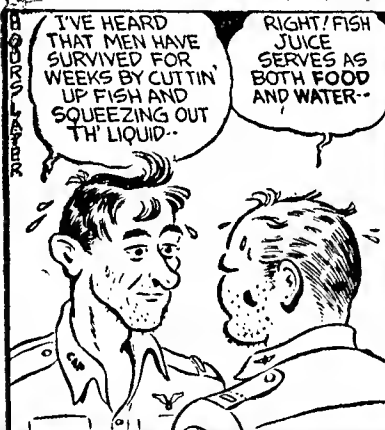
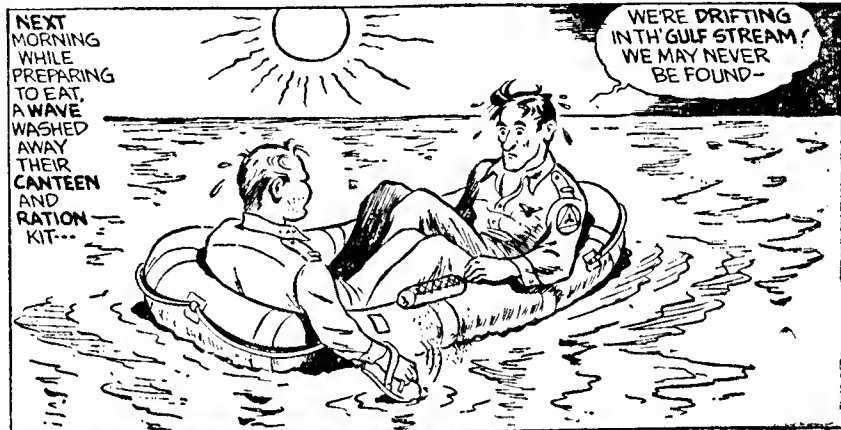
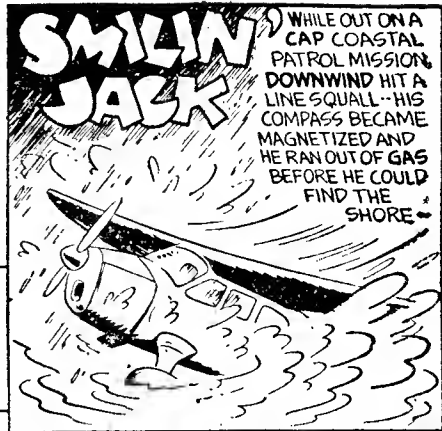


SMILIN' JACK—TO THE RESCUE



FLYING MINUTE MEN

SMILIN' JACK—SURVIVAL AT SEA



SMILIN' JACK

by

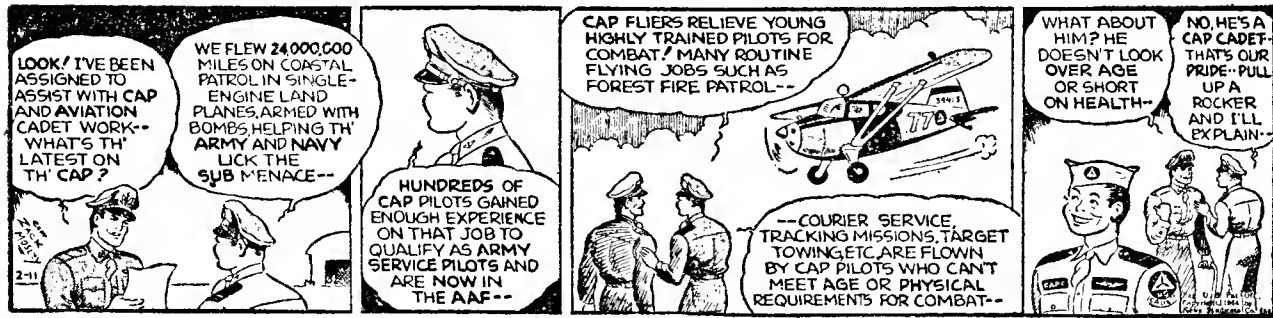
LT. COL. ZACK MOSLEY, CAP

When "Smilin' Jack" joined the ranks of the Civil Air Patrol, the cartoon character was following the lead taken by his creator, Zack Mosley, the pioneer small-plane enthusiast who regularly brings aviation into the homes of 15,000,000 Americans with his popular cartoon strip, copyrighted by the News Syndicate Co., Inc. The cartoon illustrations in this section appeared in the comic pages when the CAP was backing up its big USAF brother during the war.

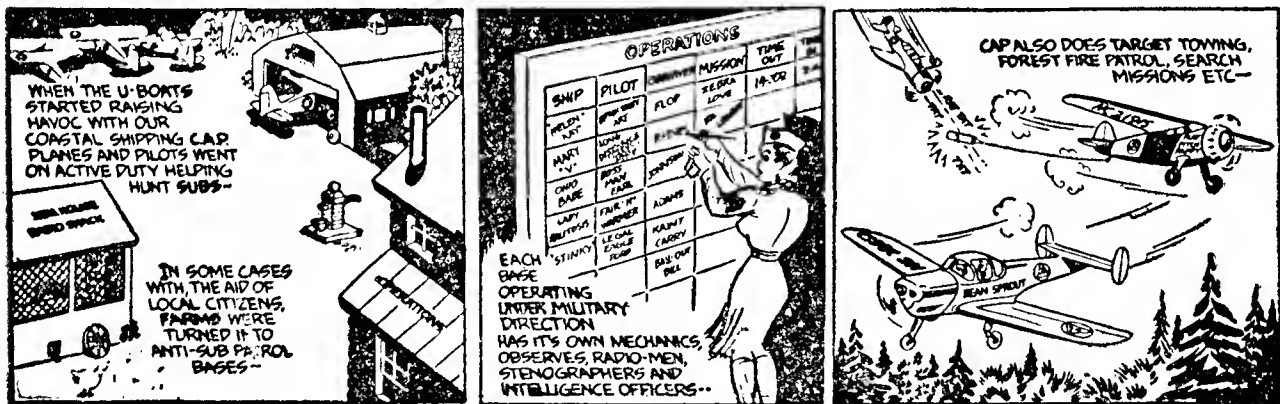
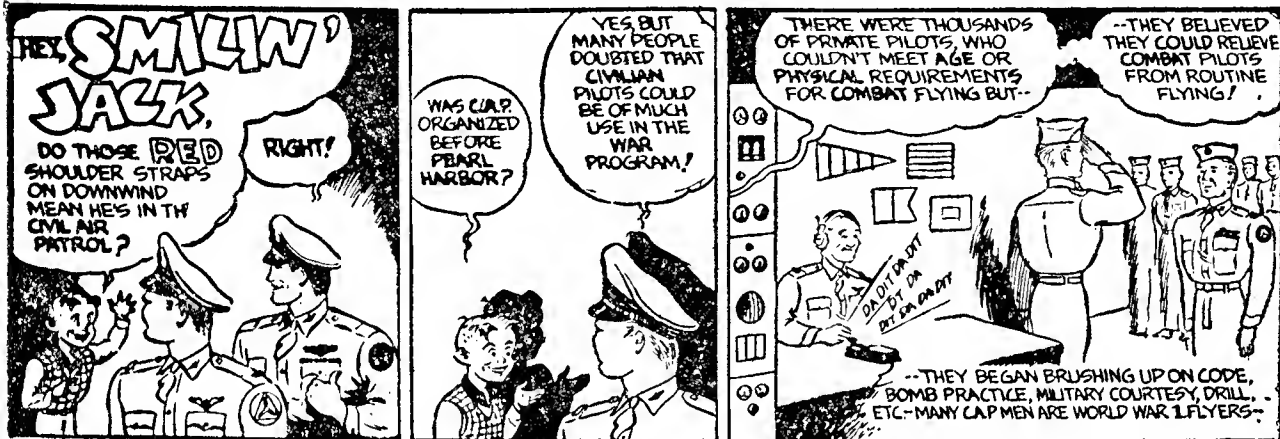
Reporting the adventures of "Smilin' Jack" has made Zack the visual historian of the Civil Air Patrol from its inception to the present. Readers avidly followed the exciting strip every day in the nation's leading newspapers because the events depicted in line drawings were inspired by Zack Mosley's own experiences when he flew with the Patrol as wartime commander of the Florida Wing. Now a Lieutenant Colonel in the CAP Reserve, Zack is a prominent leader in the drive to make the Peninsula State air conscious. As an Air Meet fan who attends them all, Zack and "Jack" are now engaged in a plan to dot America with Air Motels and Air Markers.

SEARCH AND RESCUE

SMILIN' JACK—OLE ROCKIN' CHAIR DONE GOT JACK



SMILIN' JACK—DOWNWIND JOINS UP



SMILIN' JACK—KEEP THE HOME FIRES OUT



then headed by CAP Wing Commander Guy P. Gannett, to finance this forest patrol work by the Maine Wing.

In Ohio, during the dangerous dry months, the CAP maintained constant aerial patrol over wooded sections. Amazingly successful results were achieved in 1942, the first year of operations. Spotted fires were quickly extinguished, and scarcely any were bigger than two-man fires. Lieutenant J. H. Rogers, one of six CAP patrol pilots, spotted as many as 30 fires a day that first autumn.

The following year this Ohio service expanded considerably. Some 402 missions were flown with a total flight time of 790 hours. Fires spotted and reported numbered 587—an average of nearly one fire per hour of flying. Not only were these planes used for forest fire prevention, but also for the protection of valuable coal, oil, and gas properties located in the patrol area. Not enough fire towers could be built and staffed to protect these additional resources.

CAP wings in many other states rallied to the call of the local forest services and conservation departments. By the end of 1942, the Michigan, Minnesota, Tennessee, Pennsylvania, Indiana, and Colorado Wings had all signed agreements with ground agencies to employ their light planes for forest patrol. Only on the Pacific Coast did aerial fire protection lag, and that through no fault of the Civil Air Patrol. Permission to fly over the forests of California, Oregon, and Washington in the 150-mile-wide restricted area of the Western Defense Zone was withheld for many months. Finally, CAP personnel, contending that they were the only ones with the men, planes, and ground crews to do the job the way it needed doing, were able to get the necessary authorization, and a limited number of pilots and planes were permitted to fly these patrols.

Those still grounded were disappointed by the limitation, but in most cases they continued to devote many hours to training on the ground. Major Phil Hinkley carried through an extensive program of terrain familiarization in the state of Washington, and Group 919 in Sacramento had 400 men taking instruction in all phases of firefighting and fire prevention.

Arizona, Massachusetts, Mississippi, and Missouri joined the other states in the forest patrol program. Even little Rhode Island enlisted the aid of the CAP in meeting its forestry problems during the dry seasons.

With the inauguration, in January 1944, of a joint program of cooperation between the CAP and the Texas Forest Service in the vast lumber areas in the eastern section of the Lone Star State—a program that is still in effect today—the aerial forest patrol reached its highest development. Here were eleven million acres of rich timberland to be guarded. If the states of Massachusetts, Vermont, and Rhode Island were put into that area, there would still be land peeking out at the sides.

But size was not the only problem. Much of this forest territory was located in remote and isolated sections of east Texas. Firefighters had to struggle to reach a fire, much less extinguish it. Natives of the backwoods were frequently annoyingly uncooperative. They lived much like their great-grandfathers—the first settlers—and were suspicious of all strangers encroaching upon their solitary domain. To organize and maintain adequate firefighting services under these conditions was a tremendous undertaking.

At a conference at Dallas on December 6, 1943, Colonel Earle Johnson, National CAP Commander, Lieutenant Colonel Harold Byrd, Texas CAP Wing Commander, and Mr. W.E. White, director of the Texas Forest Service, officially launched the aerial patrol unit. It was “to provide planes and trained personnel to fly fire patrol at the request of the state forest service.”

With the full knowledge of the accomplishments of the CAP on its missions along the Atlantic Seaboard, its border patrol missions, and its courier service, Colonel Johnson spoke with confidence that December afternoon when he told Mr. White, “The Civil Air

Patrol can do this job for you.”

Thirteen days later, Smoke-Chaser No. I, the TFS's first airplane, was dedicated in a colorful ceremony at Bryan. Sixty-six CAP planes with their pilots and observers, plus a number of high ranking Army, Navy, Marine, and civilian officials, were present to witness a wreath of pine boughs and cones replace the traditional bottle of champagne at the dedication. And two weeks after that—January 4, 1944—the first forest patrol unit of the Texas Wing was formally activated at this same field.

Colonels Johnson and Byrd knew that they would not lack for volunteers for this new mission—and they didn't. Although an auxiliary of the Air Forces by that time, CAP was, and still is, a volunteer organization. People from all avenues of life responded to the call. An ice-cream manufacturer offered his plane and services as a pilot. A shipyard worker and a radio-repairman reported for duty with their own ships. Texas ranchers, oil tycoons, shopkeepers, and bankers pitched in.

These people became members of this volunteer fire department of the air, ready to leave regular jobs and turn out when needed. They maintained their own equipment and took on many hours of special training without compensation. Paid only when actually on flying duty, they did this job for the sole purpose of saving the lumber resources of their state. What pay they did receive was barely enough to cover expenses. However, once the patrol was organized and underway, some of the Texas forest industries which depend on lumber contributed generously to keep the patrols going. Up to June 1946, twelve lumber companies and paper mills contributed \$5,435.90 with a view toward enabling the Texas Forest Service “to develop information concerning the efficient and adequate utilization of planes in forestry work.”

However, pilots starting to fly forest patrol missions found out immediately that the job was not one of taking off, flying around the countryside, and then returning to base. Here was employment of the airplane for a specialized mission, requiring specially trained personnel. Terrain familiarization became all-important. Spotting a fire was one thing, but spotting it accurately and being able to direct others to the blaze was another. Pilots and observers had to know every section of the forest areas over which they patrolled. This meant study and more study—on the ground.

They had to know who lived in the areas, and where they lived. They had to know a multitude of signals and radio procedures which facilitate air-ground and ground-air communication. The forest service man had to know what a CAP plane meant when it wiggled wings or tail, and a pilot had to know what was up when a man on the ground waved his arms horizontally or went into an Indian war-dance. Radio procedure was important to relay the most information in the shortest possible time. This meant the use of code words added to the established procedures outlines in C.A.A. regulations.

In order to do this job effectively, a training program, under the direction of Captain S.L. “Jack” Frost, was launched at Texas A. & M. College. Through this program, complete coordination and cooperation between the CAP personnel in the air and TFS personnel on the ground was attained.

At the same time, Colonel Byrd and Mr. White established their patrol bases. These were scattered judiciously throughout the timber area to insure immediate response and quick action upon receiving a fire report. In addition, five radio stations were set up and so situated that a CAP plane would always be within range for radio contact when on patrol.

There were occasions when using the radio was less practical than using another form of contact with the ground—the drop message. When an observer from the air spotted a small brush fire, for instance, and then saw someone on the ground in the vicinity, he would swoop low and drop a message directing the man to the fire. Thousands of acres of valuable timber was saved by the drop messages, not only in Texas, but in the other states as well.

Jack Phelps, a hard, rough, capable fire patrolman of the TFS, still likes to tell this story: He was in his lookout tower one day when he noticed a column of smoke arising out of the forest. What puzzled him, though, was that instead of billowing into a cloud as he expected, the smoke was actually decreasing. It just didn't make sense to him.

"I hopped into my car," said Phelps, "and when I reached the scene about a half hour later, I was pleasantly surprised to find three Negro farmers whipping out the last of the flames with pine tops.

"One of them came running toward me waving a pink slip of paper: 'Suh,' he shouted, 'heah's our authorization to fight dis fiah. Dey done dropped it to us in a red bag from an airyplane. Hit says dey needs us to volunteer to put out dis fiah and help save de wood for de wah!' "

Here is what that "pink paper" told the three farmers.

FOREST FIRE 2 MILES NORTH
OF YOU IS THREATENING TIMBER
THAT IS BADLY NEEDED FOR
OUR WAR EFFORT

Texas boys are fighting all over the world.

They need WOOD!

YOU CAN HELP THEM BY
STOPPING THIS FIRE!

Ask some other folks to go with you or go alone if you can.

We will do what we can to get more help.

TIME IS URGENT!

Your minutes will save hours later.

THANK YOU FOR YOUR HELP

Civil Air Patrol

Texas Forest Patrol

The Civil Air Patrol is an auxiliary of

The U. S. Army Air Forces

CAP smoke-chasers have had another job to do—a really important job—preventing fires before they start. The very presence of the patrol planes have often been a deterrent against fires being ignited. Hunters at campfires and farmers burning brush or grass have been less careless when they know the first sign of smoke is watched from upstairs. This has been a definite aid toward the elimination of individual carelessness. But there has been another menace to deal with in the prevention of fires—the firebug. Arsonists have no love for the CAP patrolmen. On several occasions, fire-setters were surprised from the sky in the act of kindling a blaze, and were subsequently captured through the efforts of the aerial spotters.

Lieutenant Kermit H. Marshall, pilot, and Lieutenant Doris Chandler, observer, on a patrol mission out of Lufkin, Texas, February 24, 1945, helped bring one of these "bugs" to justice. They were circling over a set of small fires after reporting their location to the nearest radio, KBWR at Hyatt, when Marshall suddenly exclaimed, "Say, Doris am I crazy or is that a man standing beside that fire on the right?"

"That's a man, all right," the girl answered. "Let's hang around and see what he does."

As the plane kept circling lazily, the man on the ground seemed to grow increasingly nervous. Finally he walked out to the road and hurried away from the burning area. Now Marshall was sure the man was responsible for the fires. Anyone else would have been trying to extinguish them.

Marshall contacted Hyatt again immediately. "KBWR, KBWR this is II-II. Man seen

leaving scene of fire down loop road west of Hestor Switch. Am following him. Over.”

“II-II this is KBWR. Car zero one, Patrolman O’Quinn, now near Honey Island with your range. Contact him. Over.”

They were suddenly interrupted, “II-II, II-II, this is car zero one. Heard your conversation with KBWR. I’m on my way.”

Meanwhile, the suspected arsonist had reached a nearby house and stopped to talk to a man standing in front of it. After a few minutes, he started back toward the fire again.

Just about that time, Patrolman O’Quinn in the patrol car came in sight of Marshall in the airplane. Another man was walking along the road. O’Quinn stopped and was about to get out of the car when Marshall’s voice cut in over the radio.

“Car zero one this is II-II. That’s not our man. Keep going. Our man is about a mile further on. Over.”

“Roger, II-II.”

O’Quinn drove on up the road and came upon the suspect at a bend in the road. Both pilot and observer above saw the car stop, and the door opened. A brief conversation ensued, and then the man entered the car. O’Quinn emerged from the front seat, and waved his hand at the CAP plane signifying that everything was under control. Marshall dipped his wings in salute and then returned to where firefighters sent out from Hyatt were already at work.

Not long afterward, another CAP pilot-observer team, Lieutenants A.O. McQueen and Frances Warren, saw a man hiding under a tree near a freshly set blaze, about four miles northwest of Kirbyville.

McQueen relates, “We kept circling and reported to KBWK at Newton that we had a man who, we thought, had just set a fire. They directed car zero eight to the scene. The car, with Jack Phelps driving, was about 20 miles away.

“The fire finally spread to the tree the firebug was under, and he took off for the tall timber. He walked fast until he came to some thick woods, and then he hesitated. These hesitations didn’t make us feel any better because the guy had a shotgun, and every time he stopped he’d look up and point the gun at us. After calling him some unprintable names, I yelled over the radio, ‘Hurry, hurry, zero eight. He’s got a gun—he’s pointing it at us and may be shooting, but I can’t see any holes yet.’

“A half hour later there was still no sign of the patrol car and I was getting steamed. Our quarry had traveled a couple miles already and I didn’t know how long I could hold him. If he ever got into the dense timber I knew we’d lose out. I hopped on the mike again, ‘KBWK. Where’s that car? We’re going to lose this guy any minute.’

“They told us that zero eight was rushing to the scene as fast as Phelps could drive. Just at that moment the car came into sight going at full speed. Fortunately, at the same time, the fugitive had come out into an open field, and was making a dash for a farmhouse.

“I directed the car, and warned Phelps to watch out for a shooting scrape. As the suspected arsonist entered the back door of the house, Phelps went in the front door, and the next thing I saw was the patrolman, with two guns in his hand, leading the fellow out toward the car.

“I told Phelps I’d be at the airport to identify the culprit if he would bring him over there. He did, and later when turned over to the law, the man confessed.”

Both arsonists whom Marshall and McQueen helped apprehend were tried and speedily convicted.

Airplanes demonstrated years ago that they could be used effectively in forest patrol work, but it took the CAP’s volunteer smoke-chasing activities during the war to develop the techniques that enable fire wardens to function at highest efficiency. Largely because of the impetus given by CAP, aerial patrol of forests is increasing and is spreading to timber

areas not previously touched. Captain "Jack" Frost of the Texas Forest Service heralded the trend in an article for *American Forests*:

"The plane with radio is giving a modern flexibility to firefighting which, with newly developed tractors, resembles the blitz attack of present-day warfare," he wrote. "It is safe to predict that many forestry organizations in the nation will soon be adding an air arm to their ground system."

CHAPTER 12

MERCY MISSIONS

When Paul Dresser composed his famous song, "On The Banks Of The Wabash," he wasn't thinking of that Indiana river one night in the spring of 1943. What just a few days before was a tranquil, muddy stream had become a raging torrent of cascading water rushing madly southward to join the rain-swollen main artery of the Ohio. It was flood-time along the Wabash.

As the word spread southward with the rising tide, the people in cities, towns, villages, and on the farms along the river turned out to stem the swiftly flowing waters as they edged menacingly upward, threatening at any moment to overflow banks and engulf the surrounding countryside.

The inhabitants of the little town of Clinton, Indiana, were not sleeping that cloudy, foggy night. All able-bodied men were at the river's edge building up the levee with sandbags as the muddy Wabash rose inexorably to the flood stage. The glare of automobile headlights and hundreds of flashlights cast an eerie glow over this old battle of man versus nature.

"We're runnin' out of sandbags!" the cry arose all along the levee. "Pass them up!"

But there were no more to pass. Clinton had run out of sacks.

Fifteen miles to the south on an airport at Terre Haute, six Civil Air Patrol planes were lined up ready for any emergency. A phone rang in the operations office.

"Start warming up. In a few minutes trucks will be out there with bales of bags. We just got a call from Clinton, and they need 'em bad. They'll have an area marked off by red flares. Drop 'em there."

Within half an hour, watchers on the ground at Clinton were rewarded by the sight of six low-flying planes approaching their "Target." Each one swooped down and hit the bull's-eye. Twenty-two times the little puddle-jumpers made the round trip to deliver sacks to the beleaguered town. That was all the citizens of Clinton needed. They strengthened the levee and saved the town.

Stories of the Civil Air Patrol's accomplishments in time of disaster are legion. CAP members have flown thousands of hours to save scores of lives and millions of dollars' worth of property. During floods, CAP pilots dropped warning messages, spotted leaks in levees, and delivered food and medical supplies to stranded persons. Tornadoes and cyclones have brought pleas for tetanus and typhoid serums and for penicillin and blood plasma. Explosions have drawn the CAP to the scene with doctors, nurses, and medicines. Unfortunates cut off from food or shelter by blizzards and storms have been rescued or supplied with necessities until the danger ended. And persons struck down by serious illness or injuries in isolated communities have been transported to hospitals by air or have been furnished medical care rushed to their homes by the light planes.

For the most part, the CAP has coordinated its efforts with the American Red Cross. During the first months of operations, the volunteer airmen offered their services whenever the use of planes could aid in disaster relief, and, in the years that have followed, the private fliers have acted as the untiring air arm of this national welfare agency.

When a twister struck Pryor, Oklahoma, in 1942, snuffing out 70 lives and leaving 350 injured in the jackstraw wreckage of the town, CAP Lieutenant Clark Millison, heeding a call

from the Red Cross, rushed the wing's flight surgeon, Dr. Pierre Charbonnet, to the scene to help care for the victims of the storm. At the same time, eight other planes carried vital medical supplies into the stricken area.

Later that same year, cyclones at Pawhuska, Oklahoma, Lacon, Illinois, and Antlers, Texas, saw the CAP playing Good Samaritan again. Six mercy planes, two of them piloted by women, delivered 1,100 pints of blood plasma from Dallas to Antlers when disaster visited that little Texas community. The fliers had instructions to land on the main highway near the town, but it was solidly blocked with traffic. To save lives, the pilots risked landing on an uncultivated field which was covered with debris left by the storm. The six pilots came in, half-expecting trouble when they hit the rutted, littered field. They held their breaths as their ships bounced and bumped along the corduroy surface—and breathed again when they rolled to a shuddering stop. The precious cargo was unloaded and driven immediately to Red Cross headquarters for distribution by the medical authorities.

When the United States Weather Bureau reported a hurricane sweeping along the Atlantic coast toward New England in September of 1944, seven CAP wings went on the alert. In New Jersey, all squadrons established contact with the police. Units in the New York metropolitan area stood by for emergencies. Connecticut outfits offered their services to the state guard. Squadrons in Rhode Island and New Hampshire were ready for trouble. Massachusetts hauled out portable radio equipment and a supply of paper parachutes for possible dropping of food and medicines. And the Maine Wing sent eleven mobile radio units into action, assigning three to the Red Cross and eight to the state guard.

Fortunately for everyone, however, the tropical storm never did reach its expected violence. The damage caused by the high winds was taken care of by local agencies. It was not extensive enough to require CAP aid.

Floods along the Mississippi and Missouri River valleys have kept midstream wings busy ever since their inception. Airmen in Louisiana, Arkansas, and Mississippi regularly patrol over 1,000 miles of levees. On numerous occasions they have reported small leaks which one man with a wheelbarrow could fill in fifteen minutes—leaks which a few hours later might have required 300 men and four steam-shovels to handle.

In a normal season, the missions of rescue and reconnaissance are carried out on a more or less local scale. But in the winter and spring of 1943, when continual rains brought on a virtual epidemic of floods, entire wings throughout much of the midwest were called on to help combat the horror of rampaging river waters.

When the Missouri River overflowed its banks in what were termed the worst floods in that section since 1881, Governor Robert D. Blue of Iowa requested the mobilization of every squadron in the CAP wing to aid with the state's relief measures. Squadron Commander Leon Morse of Council Bluffs didn't wait for orders. He called out his unit and two detached flights to assist the state guard immediately, and kept men and planes on duty for an entire week until the waters subsided.

With the flood receding and all dikes at Council Bluffs holding, Morse ordered his men home for a much-needed rest. But it was not to be. Within an hour, the river began rising again, and 120 dog-weary, CAP'ers reported back for duty. They were at once divided into details of 20 to fill sandbags, guard dikes, and help build levees. Far into the wee hours they struggled. The next morning OCD volunteers and state guardsmen pitched into the battle. The tide turned, the dikes around the city held, and disaster was averted.

In reporting this story, the Iowa Wing *Bulletin* commented:

"If you could have been on the scene and watched these boys come in practically frozen, tired, hungry, mud from head to foot—drink a couple of cups of hot coffee—and then pile into a truck and go back for hours and hours more of hard work, then you would realize what we mean when we say, 'They've got what it takes.' "

Other states to bear the brunt of flooded rivers that year were Nebraska, where Lieutenant Carl Lang of Omaha acted as emergency operations officer; Ohio, where the civilian airmen volunteered in patrolling stricken areas and relaying flood information to ground authorities by radio; Kansas where planes from Wichita kept officials informed as to conditions through photographic surveys and aerial sketch mapping; and West Virginia, where pilots dropped medical supplies, food, and other necessities to isolated communities.

In the latter state, the CAP accomplished a special mission. The swiftly rising waters of the Ohio had marooned more than 2,000 employees of an ordnance plant near the town of Point Pleasant. There was no telling how long the men would be cut off, and they were hungry. There was food on hand, but one man was among the missing, the one person who knew how to turn out meals in mass production—the company chef. None of the amateur cooks among those stranded had enough experience to cope with 2,000 growing appetites.

The Huntington squadron, appraised of this predicament, provided a remedy. After the men had converted their parking area into a landing strip, and laid a huge arrow made of rice to show wind direction, a little plane landed with the long-sought chef. The cheering, hungry workers crowned that worthy with a wreath of vegetables and hustled him off to the kitchen.

Oklahoma fliers racked up more than 500 hours during the 1943 flood emergency. Families in distress spread white sheets on their roofs so they could be spotted from the air. A number of persons in desperate need of help were located and boats sent to their rescue.

The Arkansas and White Rivers, meanwhile, were pouring over more than a million cropland acres in Arkansas, leaving hundreds homeless. CAP operations offices were set up at Adams Field in Little Rock to handle the rush of requests for help. Mail was carried, light and power lines inspected, stranded farm animals were located, and reconnaissance flights were made. In only two weeks, planes out of Adams flew 69 missions totaling 17,000 miles.

The CAP fought floods before, and has fought them since, but never have its facilities been taxed to such a great extent as during that spring of 1943 when most of the nation's bread basket was waterlogged.

But while the Civil Air Patrol has performed spectacularly in disasters that have struck at entire communities, it also has excelled in mercy missions involving individuals.

High on the list of life-saving flights was one undertaken by Colorado's Lieutenant Eddie Drapela on January 15, 1945. A pneumonia patient in the mining town of Nucla had to be rushed to Denver for emergency hospital treatment. Drapela, operations officer of Group 4 at Grand Junction, made the 50-mile trip from his home base to Nucla in his Beechcraft, landing late that winter afternoon on an airstrip in which any hog with a semblance of dignity would have refused to wallow.

By this time, the patient, Earl Schlegel, a war veteran, was unconscious. While the seats in the plane were being hurriedly rearranged and Schlegel strapped in, the local doctor gave Lieutenant Drapela a last-minute briefing.

"Lieutenant, I'll be frank. Mr Schlegel is a sick man—a very sick man. If we don't get him to the hospital and under an oxygen tent with 24 hours, he'll die. We've done all we can for him here. There is one thing I must caution you about," the doctor continued, "and that is flying too high. We have to take the chance that in climbing over the Continental Divide, the patient will not be exposed too long to the rarefied atmosphere. He is not getting enough oxygen here on the ground. He will be getting less upstairs."

Drapela nodded gravely. "I see what you mean, Doc. I'll try playing cat-and-mouse around the mountains and keep as low as I can."

Only a few minutes of daylight remained when Drapela got into his now-transformed ambulance plane, checked the fastenings of the patient's cot, and revved his engine. His first take-off attempt ended in failure. Thick, sticky, clinging mud along the runway prevented

him from reaching anything like flying speed. There was only one other choice—a desperate one.

The Grand Junction ace taxied to a nearby road that was dry enough, but seemingly too narrow to accommodate the wingspan of even a small ship like the Beechcraft. Glancing back at his white-faced patient, Drapela turned and gave her the gun.

The little plane jumped forward with a roar. Sagebrush and branches slapped viciously at the wing tips as the ship gathered momentum along the emergency runway. Drapela pulled slowly back on the stick. Gradually, almost grudgingly, the plane lifted off the ground, then settled, then lifted again until at last, free of the menacing brush, it soared into the air, its nose pointed toward Denver—150 miles away.

Drapela had no sooner gained altitude than he discovered his passenger would require almost constant attention to prevent a choking spell. Schlegel had recovered consciousness and was gasping for breath.

“Take it easy, fella. We’ll get you there,” the lieutenant assured him.

Every few minutes, as the Beechcraft bored through the darkness, Drapela flashed his light on the sick man to make sure he wasn’t strangling. Then he turned again to his piloting. He flew between mountains, deep in their canyons. He skirted sharp cliffs and overhanging precipices. He ducked around snow-covered peaks, and strained his eyes to find safe passageways in this range he knew so well.

The lieutenant realized one thing. He couldn’t fly through the Continental Divide—nothing in his bag of mountain tricks permitted that. As he approached it, he climbed slowly, one eye on his altimeter and the other on his stricken passenger.

“Hold on, boy. Just a little higher. Just a little more. Little higher—Hah, we made it!”

As the wheels of the Beechcraft passed within a few feet of the last rocky ridge, Drapela angled the ship’s nose deep into the canyons and played dodge-’em again with the snow-capped peaks.

Finally, after almost two hours of playing the dual role of doctor-pilot, Eddie Drapela saw the lights of Denver’s Stapleton Field blinking in the distance. An Army ambulance was waiting when he landed. Schlegel was whisked away to Fitzsimmons General Hospital and placed immediately under the life-giving oxygen tent.

A few days later, back at Grand Junction, Lieutenant Drapela received the good news. That harrowing night flight had paid off. His patient had passed the crisis and would recover.

One of the more unforgettable missions which CAP pilots still laugh about was chalked up by a western flier who, for obvious reasons, will remain anonymous. The stage for this exploit was set by a farmer who thought he smelled a gas-leak in his homemade heating system. He went down to the cellar and struck a match to see what was wrong.

The explosion blew him into the backyard, tossed his wife through the kitchen wall, and transplanted his sleeping daughter—bed and all—into the Great Outdoors. The daughter climbed out of bed unhurt, but the farmer and his wife were critically injured and needed a supply of blood plasma in a hurry.

The pilot carrying the plasma was told that a nearby cow pasture would be available for landing, and that an ambulance would be standing by to pick up his cargo. Neighbors of the injured family were to park their cars around the perimeter of the pasture so the pilot would lose no time in spotting the field.

Everything went according to Hoyle. The cars were there, the people were there, and the plane arrived on schedule. But what they didn’t count on was a free-for-all among three bulls in the center of the pasture at about the time the mercy flier reached the field. The crowd was so busy watching the fight, it was only after the pilot circled a few times, gunning his engine, that they noticed him and got around to driving the animals into a corner so that he could land.

Once on the ground, the courier handed over the plasma, climbed out of his plane, and prepared to stretch his legs prior to taking off again.

"Hey, buddy! Look out!" someone shouted.

The pilot turned—a scant 30 yards away the three bulls, incensed at the intrusion upon their private domain, were pawing the ground and snorting, obviously about to charge.

The hero jumped into his ship and started bouncing across the pasture with all three bulls in hot pursuit. At the last moment, just as the leading bull was about to hook the Cub's tail, the pilot pulled up, and the little plane barely skimmed over a fence to safety.

The Reno squadron and the Western Pacific Railroad combined forces in November of 1945 when the life of a woman in Gerlach, Nevada—a whistle stop 200 miles north of Reno—was in jeopardy. It was late on a Friday afternoon and the Western Pacific station agent at Reno was about to close up for the day when the Morse receiver started chattering. The message was from Gerlach:

"Emergency, perhaps life and death, depends getting Mrs. Jack Phillips to hospital by plane. Advise if will contact Civil Air Patrol or Red Cross regarding plane take Mrs. Phillips to Reno for appendectomy. Might be able to get Forest Patrol from Alturas. Advise quick if any results."

The station agent moved fast. He contacted Western Pacific's general agent, G.I. Martin, who, in turn, telephoned the CAP office in the Lyon building. AAF Captain Walter E. Stewart, CAP-AAF Liaison Officer, volunteered to fly the rescue plane, and arrangements were well underway by 5:30 P.M. when Martin clicked this message to the little town in northern Nevada:

"Captain Stewart, CAP, leaving here immediately. Will arrive Gerlach within hour. Arrange with Western Pacific employees and Pacific Portland men if necessary stand by with smudge pots or lanterns. Also test with truck to see that surface on dry lake hard and will not bog down."

Stewart, at the controls of an AT-6, roared over Gerlach on schedule only to find his expected landing place—a dry lake south of the town—shrouded in darkness. The only lights to be seen were those twinkling in the center of town.

What goes? he thought to himself. Is this a gag or something?

Varying the pitch of his propeller, and ramming on full throttle, he thundered down in a screaming dive, buzzed over the town at tree-top level, and pulled up again. He repeated this maneuver several times.

"That ought to let 'em know I'm around." He scanned the ground below. Still no sign or signal.

Four more times he went down to the deck and skimmed over Gerlach. Just as he was about to give up, he noticed the headlights of a car on the outskirts blinking on and off. He took a closer look. The car was speeding westward across the flat terrain, with a red railroad flare sticking out of a window.

Stewart turned and followed the car to a dirt landing strip about six miles from town. The headlights of several parked automobiles illuminated a runway, and the captain set his trim ship down easily.

Mrs. Phillips, her face white and drawn with pain, was carried to the waiting airplane. Willing hands lifted her into the empty cockpit, wrapped her in blankets, and cushioned her with pillows.

In a few minutes, the mercy plane was winging its way back to Hubbard Field, Reno, as Captain Stewart poured on the coal. And inside of an hour, Mrs. Phillips was in an ambulance on her way to a Reno hospital. The operation was a success, and Martin tapped out one further message to Gerlach:

"Please tell Phillips that his wife had a pleasant trip and is now resting comfortably at

Washoe General Hospital.”

A sampling of other missions flown around the states includes the rushing of a vial of rattlesnake serum to a soldier stationed at Camp Carson, Nevada; the flying of an AAF enlisted man from Buffalo to Jamestown, New York, in time to see his mother before she died; and the transporting from farm to hospital of a child whose skull had been crushed by a tractor. On numerous other occasions, supplies have been dropped to passengers marooned in snow-bound busses, to hunters hemmed in by blizzards, and to ice-locked boats on the Great Lakes.

When Jimmy Vacek, a Galveston salesman and a crackerjack flier, was called one autumn morning in 1944 to fly penicillin to Port Arthur in time to save the life of a four-year-old boy, he didn't think of the expense or the personal danger. And when he received the following note from Mr. and Mrs. Holmes Carney, Jr., the boy's parents, a few weeks later, he considered himself amply rewarded:

“Because of your kindness and speed in getting penicillin to our boy, he is recovering rapidly. Yesterday Kenny celebrated his fourth birthday. . . ”

That was the kind of currency in which CAP mercy fliers were paid—and it suited them perfectly.

The first-aid training every member of the Civil Air Patrol receives has been turned to good use on countless occasions. In one typical case at Gary, Indiana, a man critically injured in an auto accident recovered from a type of spinal injury that is usually fatal. He almost certainly owes his life to James Daniels of East Chicago, a CAP member, who prevented well-meaning onlookers from moving him until an ambulance arrived. Doctors agreed that the victim's spinal cord probably would have been severed had he been disturbed at the time of the accident.

In another instance, the CAP squadron commander at Mendon, Massachusetts, Lieutenant C. Henry Knights, found a snowplow stuck at the side of a road with two sprawled figures in the cab. Knights spread out blankets on the road and went to work with artificial respiration methods he had learned in CAP classes. Both men, who had been overcome by carbon-monoxide poisoning, were revived by the lieutenant's quick action.

Of all the unusual mercy missions flown by the Civil Air Patrol, however, probably the strangest came to pass in Colorado in the winter of 1943. Lieutenant Jack Bethel of the Montrose squadron, flying over snowbound Horse Fly Range, sighted a horse imprisoned in a canyon. The animal's escape was blocked by the giant drifts at the open end, and he was apparently starving to death. Circling low, Bethel could almost count the horse's ribs.

The pilot streaked for his home base, picked up a bale of hay, and returned to drop his cargo.

“It was heart-warming to see that nag go after the hay,” Bethel told his buddies when he returned to the field. “I bet he hadn't eaten for a week.”

Bethel made daily flights after that, keeping the snowbound horse supplied with quantities of hay for more than two weeks. At their last meeting—the snow was melting and the canyon mouth was almost clear—the horse noticeably had put on weight. And as for Bethel's bombing skill, well—it improved with steady practice until, to hear him tell it, “Why fellas, you might not believe it, but that danged horse only has to open his mouth to catch dinner *on the fly*.”

With its mighty reservoir of planes and pilots always on call in the unceasing battle against floods, tornadoes, and blizzards—and always ready to fly aid to individuals in desperate need—the Civil Air Patrol will continue to save American lives in the years ahead.

CHAPTER 13

WOMEN IN THE SKY

When the first coastal patrol bases were set up along the Eastern seaboard, women toiled alongside men to put patrols out over the ocean. They weren't allowed to fly the dangerous sub-spotting missions, but they performed nearly every necessary ground job from typing reports to manning the plotting boards and handling radio communications.

When the CAP couriers spread their wings to carry urgent shipments to defense plants and Army sub-depots, women pilots shared the flying assignments with the men. They also flew on plane searches, mercy missions, and forest patrols. And, although they were not permitted to fly the risky towing and tracking stunts for ack-ack gunners and searchlight crews or to go on aerial sentry tours along the Mexican border, each active duty unit boasted from three to a dozen women who helped keep the CAP flying. Nevada's mounted patrol even included several stalwart, hard-riding females among its members.

At the outset of the war, women with aviation backgrounds were enlisted by the CAP along with male pilots and technicians. There was no discrimination because of sex. Individual ability, experience, and past record counted. Major General John F. Curry, first national commander of the patrol, hung out the welcome sign to the ladies when he announced:

"There must be no doubt in the minds of our gallant women fliers that they are needed and, in my opinion, indispensable to the full success of the CAP. A great part of the progress made in organizing civilian aviation under the Civil Air Patrol has been due to the volunteer help given by women fliers—members of the Ninety-Niners and the Women Flyers of America."

General Curry was referring to the enthusiasm with which members of the two oldest aviation sororities in the country pitched in to help CAP get started when the call for volunteers was sounded. The veteran female pilots cut short their flying activities to take over the clerical duties at the headquarters of many an embryonic CAP unit, typing application forms and making up rosters.

Every occupation was represented by the women who flocked into CAP. Schoolteachers, doctors, artists, writers, and college girls joined the ranks along with secretaries, telephone operators, file clerks, and housewives. And out of the defense plants—particularly the airplane factories—poured thousands more. Each had something to contribute and each helped to prove that women have their place in aviation.

Some of Hollywood's brightest stars joined; among them Mary Astor, later a plotting-board operator at the Brownsville coastal patrol base; Carole Landis, a volunteer nurse attached to the sheriff's squadron of Los Angeles, and Joan Fontaine, who could fly a plane with the best of them.

Such well-known pilots as golden-haired Jacqueline Cochran, who went on to command the Wasps, and Nancy Harkness Love, head of the Women's Ferrying Division of ATC, were at one time members of CAP.

So, too, was Cornelia Fort, pert young Nashville aviatrix who was the first WAF to die on active duty. Miss Fort was an aviation instructor in Honolulu at the time of the Pearl Harbor attack. She was in the air with a student the Sunday morning when the fireworks broke

loose, but she managed to land her trainer safely in the midst of the strafing and bombing. Back in the states, she joined the Tennessee Wing staff of CAP and helped push enrollment of women with her speeches and her flawless flying. Miss Fort was the second person to volunteer for air duty in the Women's Auxiliary Ferrying Service. She was killed near Markell, Texas, in March 1943, while ferrying a bomber from her base at Long Beach. The Cornelia Fort Air Park on Rosebank Avenue in Nashville was named in honor of the former CAP flier.

In some localities, women formed their own flights and squadrons; in most instances, however, they belonged to the same units as the men. In either case, the senior and cadet members tackled the same training courses as the so-called stronger sex and were eligible for appointment as officers and noncoms. They may have worn culottes instead of trousers, but they were never coddled or given special favors. The attitude of most of their officers was voiced by the commander of a Los Angeles group in the summer of 1942, when training was at its height. Referring to a newly formed women's flight, he said:

"They'll know how to fix their own planes by the time they finish their mechanical training. And they'll master first aid, drill, meteorology, and navigation. They'll spend two hours in the drill hall and classroom nearly every night in the week. They'll learn all there is to know about mountainous terrain and fire-spotting. Then, in August, when the flight unit is complete, they'll be ready to take their places alongside the men in the Patrol."

Perhaps that officer was more demanding than some, but the important consideration was to whip the units into shape.

At colleges and universities, coeds combined mechanics and meteorology with their English and history. At Palo Alto, California, students made up a large part of the squadron membership. Campus activities and studies took a back seat at least three nights during the week as the girls dug into CAP's pre-flight courses. Stanford lovelies actually took apart and re-assembled airplane engines.

At the mechanics workshop, pretty Janet McClanahan, in grease up to her elbows, looked at her watch and said, "I've got to get this piston set before 9:30. I've got a Spanish exam tomorrow and I have to hit those books before I go to bed. Say, hold this wrench a minute, willya?"

"I have an exam tomorrow, too—bacteriology," replied her partner, dark-haired Lynn Croft, from the other side of the bench where the airplane motor was being assembled, "and I'll be darned if I can put that carburetor and feed-line together any faster."

So it went. The women who joined CAP—fliers and non-fliers alike—got grease in their hair, learned how to step it off on the drill floor, and became acquainted with the military way of doing things. Those who already knew their way around the airplanes went out on practice missions to master the techniques of lost plane searches, forest patrol, and courier missions. At the same time, many of the "kiwi" members purchased flying lessons from private operators after they had been graduated from the pre-flight course offered by the Patrol.

That they succeeded in establishing themselves on an equal basis with the men was made official by their commander, Colonel Earle Johnson, when he was moved to say, "Women are just as good as men on most flying jobs—and sometimes better." As boss of some 30,000 senior women and cadets at the peak of CAP enrollment, he was qualified to know.

Of all the CAP women who ever climbed into a cockpit, one of the most beloved and colorful was Second Lieutenant Maude Rufus, public-relations officer of the Ann Arbor, Michigan, squadron. She was known as "The Flying Grandmother" because she had soloed at the age of 65, long after the birth of her first grandson. Lieutenant Rufus was a member of the Ninety-Niners and the author of a book entitled, *Flying Grandmother, or Going Like Sixty*. And although she didn't take to the air until an age when most women are content to

concentrate on their knitting in a comfortable rocking chair, Mrs. Rufus had nearly 1,000 hours to her credit and was a veteran cross-country flier.

The Flying Grandmother made her last hop in the summer of 1944 when she left Ann Arbor in her Cub Coupe en route to Alexandria, Virginia. She stopped to refuel at Washington, Pennsylvania, the same town where she had given her 91-year-old father his first plane ride in 1941. On the take-off that followed, the Cub couldn't squeeze out quite enough altitude to clear a grove of maples at the far end of the field. Mrs. Rufus died a few hours after the crash, and her passenger, Mrs. Harry Gillen of the Ann Arbor squadron, suffered serious injuries.

There was a time during the early months when a lively wrangle ensued among the women over the question of slacks versus culottes. Acting Supply Officer Harry R. Playford of the national CAP staff was faced with a problem that would have tested the wisdom of King Solomon himself when he attempted to recommend a practical and attractive flying uniform for the ladies.

The woman wrote with firm conviction: "Our squadron believes that slacks are more practical than culottes and less encumbering to girls climbing in and out of planes and wearing parachutes. We have never seen any girl wear culottes while flying. Slack and jodhpurs have always been the dress."

But another member—a Ninety-Niner—countered with equal vehemence: "Most girls and women look horrible in slacks, no matter how well-tailored—unless they are John Powers models. If the women in CAP are to wear uniforms, why don't you include an optional culotte which is just as practical for flying and a lot more sightly on the ground?"

The crisis terminated when Playford proclaimed that culottes were to be the official uniform for street wear and that a squadron could select its own flying togs, subject to the approval of National Headquarters.

When women of several United States and British services assembled in Washington in October 1942, the CAP was represented by Lieutenant Mary Sayre Hoopes of Philadelphia, whose snappy uniform attracted much favorable comment. She wore a khaki shirt, culottes, and an overseas cap.

The right to adopt the WAC uniform with certain distinctive exceptions came in the summer of 1943. By that time, the distaff side of the Patrol had proven its worth many times over. The silver CAP insignia and the familiar propeller-triangle-circle shoulder patch distinguished the CAP garb from that of the Women's Army Corps. The civilians didn't acquire the WAC cap, retaining their overseas and service toppers as before.

The armed services were swelled by hundreds of women who had absorbed CAP training. More than half the high-flying Wasps, those intrepid pilots who for more than two years starred for the AAF in what had been considered a man's game, were at one time members of the Civil Air Patrol. The Wasps flew everything with wings for the Air Forces. They towed targets for aerial gunners, participated in simulated bombing and strafing missions, and sky-chauffeured important brass from September 1944 until December 1944, when surplus AAF pilots took over. Women of the ATC's Ferrying Division meanwhile delivered every type of aircraft, from training ships to the heftiest bombers, to bases from coast to coast and as far north in Canada as Edmonton and Winnipeg, on the Alsib route to Alaska.

When the Wasps disbanded, they found the Civil Air Patrol waiting for them. A CAP official reported: "All over the country, the Wasps are coming back into local aviation. These girls, representing thousands of dollars' worth of expert technical training, are rendering extremely valuable service to CAP. It's a real homecoming for many of them."

Thousands of young women who voluntarily left their homes to join the Women's Army Corps were also graduates of the Patrol. Most of them served with the AAF, moving into 226 different jobs at scores of air bases in the domestic zone and abroad. Some became

typists and file-jockeys, but many others drew assignments as meteorologists, radio communications specialists, and traffic control directors. The closer they were to the hangars and runways, the better they liked their GI setups.

The CAP, which had scored an unqualified success in lining up Aviation Cadets for the AAF, went to work recruiting Wacs in the summer of 1944 and gave the program a powerful shot in the arm. Air exhibits, window displays, newspaper and radio appeals, and—for a time—free airplane rides attracted large numbers of prospective Air-Wacs.

At the same time, many young women who had received their first military experience in the Patrol became members of the Waves, the Spars, the Marines, and the Army Nurse Corps. Colonel Ruth Cheney Streeter, commander of the Marine auxiliary, was at one time an officer in the New Jersey Wing. Without exception, these women in uniform found their CAP training a valuable preparatory course for experience in the various services.

The wartime exploits of CAP ladybirds, a cross-section of the missions they piled up when their country needed them, deserve telling. Lieutenant Clara Livingston of Cleveland's Group 514 distinguished herself on a suicidal search for a crippled lake barge adrift in one of the worst storms to lash Lake Erie in years. Flying through a blizzard that cut visibility to almost zero-zero, she and several of Cleveland's best male fliers, among them Captain Dwight Joyce and Lieutenant Don Patrick, finally located the barge for the Coast Guard after a series of unsuccessful forays over the lake. But darkness and mountainous waves prevented the crew from being removed, and the *Cleveco* went down that night with nine aboard. That the search had a tragic ending was no fault of Lieutenant Livingston and her fellow fliers.

On two grand-slam forest patrol missions in East Texas when arsonists were spotted setting fires in rich timber areas, women were flying as observers. Lieutenant Doris Chandler and Frances Warren pointed out the felons, made radio contact with wardens on the ground, and played a part in the capture.

Women mostly flew as couriers. Only a few served Air Force bases in the mountainous West, but many carried cargo for war plants and sub-depots in the Great Lakes area and throughout the industrial East.

Lieutenant Dorothy Forkel of Rochester, New York, who had learned to fly only a year before, was among the pilots who helped keep the airplane production line moving without a hitch at the Curtiss-Wright factory in Buffalo. One day, in January 1943, the load of critical parts she carried in her plane was all that prevented a serious bottleneck at the immense plant.

One of the oldest and best of the nation's courier stations took on a woman commander when the Reading, Pennsylvania, station appointed Lieutenant Frances Nolde to the post in 1943. Mrs. Nolde, the mother of seven children, held a commercial pilot's rating and had logged nearly 500 hours during her two years of flying.

Lieutenant Stella Nowak was one of the few women assigned to courier duty with the Second Air Force. She was on Flight 50 in Colorado, her run being from Peterson Field to Pueblo Army Base to Trinidad—and return. Stella did a good job, too, in spite of the ripping thunderstorms, howling blizzards, deadly downdrafts, and other plane-crippling weather phenomena. Flying over the Colorado Rockies was plenty rugged, especially in the winter, but Lieutenant Nowak's most paralyzing moment came on her first flight out of Peterson—and on the ground.

She had landed at Pueblo at lunchtime, and the boys at Operations rushed her over to the Officers' Mess in a jeep, leaving her standing alone in front of the building. She looked at the big sign over the door, marched up the stone steps, and went inside. Then is when her blood turned to water. She was tempted to turn around and dash out. She was confronted by a mammoth dining room containing rows and rows of tables. Dozens of officers were

already eating and it seemed as if every last one of them was looking directly at her.

This was in the days before any Wacs had appeared at Pueblo and a female in uniform was a rare item. The girl cashier came to the rescue, saying in a kind voice, "Here, let me walk you down to a table near the center." Lieutenant Nowak was a little dubious, but she followed along. After what seemed to her like a five-mile hike through a forest of staring eyes, the girl she was following finally halted at a table where there were eight places and seven officers.

Immediately all seven rose and remained standing until Lieutenant Nowak reached her place. Then the one next to her drew the chair out and she sat down. Self-conscious and outnumbered, Stella decided to be as mum as a tongue-tied clam. But her table companions engaged her in conversation before she could say, "Please pass the salt," and before long she found herself telling them all about the Civil Air Patrol and the mountain couriers. From that day on, the girl on Flight 50 was a regular luncheon guest at Pueblo and she was always treated like a queen.

"Despite bad weather. . ." is a phrase which has introduced many a news story of CAP courier accomplishments. The "pelican patrol," in chalking up its fine record, had the weather to contend with a large part of the time. Flights often went through under conditions which grounded all military and commercial planes.

One of the courier pilots who challenged the vagaries of the weather—and lost—was a woman with thousands of air hours to her credit. She was Lieutenant Margaret Bartholomew, commander of the Cincinnati courier station and well known in national aviation circles.

In October 1943, Miss Bartholomew and Lieutenant Melvin Myers flew from Cincinnati to Williamsport, Pennsylvania, in a Stinson 105, completing half of a routine, round-trip ferrying flight. They were to pick up a larger plane.

"Looks like a storm brewing," commented Myers as he and his companion made their way to flight operations after landing.

Lieutenant Bartholomew nodded agreement. "Yes, I noticed the clouds thickening toward the north on our way in. Let's take a look at the weather sequences. Hope they aren't too bad. I'm anxious to get home by tomorrow."

The sequences were of little comfort. A front was moving in over the city, bringing with it low ceiling, high winds, and continuous rain.

"Begins to look like you two will be sticking around for a few days," remarked the meteorologist on duty. "This stuff looks solid. It's going to hit in a couple of hours. All the flying that'll be done around here for a while will be in the hangar."

That night the rains descended on Williamsport. The storm lasted four days, with Miss Bartholomew and Lieutenant Myers twiddling their thumbs helplessly as they sweated out a break in the weather. The girl, anxious to be back on the job at the courier base, was particularly perturbed by the enforced delay. Finally, on the fifth day, the spirits of the stranded fliers soared. The rain stopped and the ceiling, which had remained at zero-zero for the better part of a week, rose beyond take-off limits. Lieutenants Bartholomew and Myers showed up at the airport bright and early for their trip back to Cincinnati.

The weatherman was still a trifle dubious. "I don't know," he muttered wearily. "I'm betting we haven't seen the end of this yet."

"Well, I've seen all I care to see of your fine Pennsylvania weather," the aviatrix laughed good-naturedly. "All I need is my clearance and I'll be back in Cincinnati this afternoon."

A moment later Lieutenant Bartholomew waved the clearance at Lieutenant Myers and the meteorologist. "This is my ticket home. I'm on my way," she said.

"I'll be along in a few minutes, Margaret," Myers called after the girl as she went out the door. "The boys are getting my ship out of the hangar."

Myers walked over to the window and watched Miss Bartholomew climb into the cabin of her Stinson. He saw the mechanic who had been warming up the engine jump aside and wave her away. Then the sturdy little monoplane swept down the runway and rose into the air, its nose pointed west toward Cincinnati.

The sound of the Stinson's engine was still in Myers' ears when the meteorologist called to him. "Here's the late weather coming in, Lieutenant." A pause. "Say, this isn't so good! Pittsburgh reports high winds and. . ." The weather had taken a sudden turn for the worse.

"Let's see that report." Myers face whitened as he read over the sequence. Without another word, he raced up the steps to the tower and burst in on a startled operator.

"Get on the radio, bud! That girl in the Stinson who just left here is heading for plenty of trouble. We've got to get her back."

"Okay, Lieutenant." Then into the mike: "Calling Stinson 865. Calling Stinson 865. Stinson 865. This is Williamsport tower. This is Williamsport tower. Over."

Silence greeted that first call.

"Keep trying," Myers ordered, mentally kicking himself for allowing the girl to take off without waiting for that last sequence.

"Calling Stinson 865. Stinson 865. This is Williamsport tower. Over. Come in, 865."

Myers leaned forward tensely. Was that her voice? No, only the crackling static.

The operator kept calling, again and again, in a constant but unsuccessful effort to reach the Stinson that was heading into the teeth of another storm raging in the mountains of western Pennsylvania. Finally he shook his head and put the mike down. It was no use. Either the plane's radio was out of commission, or the flier wasn't listening.

The rest of the story was told the next morning in the Williamsport *Sun* under the headline, "Woman Courier Pilot Lost." A few hours after her take-off, Miss Bartholomew had encountered the full strength of the storm. A farmer in the western part of the state heard the sputtering engine of a plane above the whish of the wind and rain. He rushed out of his house and saw the storm-battered Stinson slipping and skidding downward in a frantic attempt at a forced landing. Suddenly the engine quit and the little craft went into a silent death-dive. There was a crash and then silence, as the Stinson plunged into the side of a small hill.

Fortunately, such accidents were few. While they were daring fliers when they had to be, and sometimes were overtaken by unexpected bad weather, CAP pilots seldom took unnecessary chances. They guarded against indifferent maintenance or any of the other factors that could lead to an early grave. They paid close attention to the fundamentals as well as to the fine points. But there were occasions when a person's number came up, in spite of every precaution.

While serving CAP as its public-relations officer during the war, Major Ken Hoyt wrote: "The male half of the population can build only half or less than half of an industry until the flying daughters, mothers, and grandmothers put their full influence and great purchasing power behind American aviation."

Prior to the war, our aviation industries had done little to increase female patronage. Out of 100,000 licensed pilots at the time of Pearl Harbor, barely more than 3.5 per cent were women. Due to the wholesale training of pilots for the Air Forces, the ratio of women pilots is even less today. The raising of this percentage is one of the aims of the Civil Air Patrol, whose senior and cadet membership as of May 1945 was more than 20 per cent on the distaff side.

If women in all walks of life give peacetime aviation the kind of support they gave to the Civil Air Patrol during the war years, the family plane will soon appear on the American scene, just as did the family flivver a generation ago.

CHAPTER 14

LATER DAYS

Thirty CAP members residing in Redmond, Oregon, barely took time to glance at the headlines of their Sunday papers on the morning of August 27, 1944. They hustled into their oldest clothes, bolted down a hasty breakfast, hopped in their cars, and hurried out to the sagebrush flats five miles west of town. Their job that day was to convert 80 acres of prairie into an airpark—a jalopy haven to replace the municipal field that the Army had taken over for the duration.

Armed with pitchforks, shovels, and grubbing hoes, the men and women—aided by the inevitable small boys who tagged along—sweated at the preliminary task of clearing sagebrush from the runway areas staked out by Lieutenant Forrest Cooper, resident highway engineer and the squadron's operations officer. The sun climbed, hot and shimmering in a cloudless sky, as the morning wore on. Cokes brought out from town were fished from buckets of ice water, bringing temporary relief to parched throats. A few inveterate javahounds among the crew defied the August heat by patronizing a woman who showed up with a large thermos of hot coffee.

By mid-morning the grader loaned by the Redmond air base was humming up and down the field, and a GI bulldozer was flattening the small trees that grew in the area. A leveler and a smoother crisscrossed the runway sites in the wake of the grader. The only real break came at noon when all hands took time out for chow—hot beef stew ladled out under the paternal eye of the supply officer.

Approximately seven blistering hours after the construction bee started, two runways, one 1,900 feet long and the other 1,200 feet, were in usable shape. To Lieutenant Walter Howard, commander of the squadron at the neighboring town of Bend, went the honor of making the first landing. As Howard's plane kissed the north-south runway with a three-pointer late that afternoon, his weary and sunbaked reception committee tossed aside rakes and hoes and called it a day—and what a day!"

In commenting on the doings of that August Sunday, the Redmond *Spokesman* noted in an editorial that "the construction of the Redmond Civil Air Patrol port resembled those old-fashioned barn-raising that the first residents of central Oregon held to help out their neighbors."

The airpark wasn't finished that first day, but it *could* be used. On the following weekend, Lieutenant Maurice Roberts, commander of the Redmond squadron, and Lieutenant Dick Ballantine, manager-to-be of the field, called for another turnout. By the time the follow-through session was finished, both runways were widened and the north-south strip doubled in length, the sprinkler and grader had gotten a workout, and a big pile of rocks had been moved from the premises. Gasoline pumps were installed a few days later, and the community's Cubs and Taylorcrafts were soon buzzing in and out of the field as if it had always been there.

Construction of the hangar waited until October when the CAA handed the Redmond airport a permanent designation. The volunteers turned out again early on a Sunday morning, this time with hammers and saws. Before the sun set, a three-plane hangar, 28 by 80 feet, had sprung up as if by magic. That did it. With good flying weather prevalent on an average

of 349 days a year in central Oregon, the CAP field has seen plenty of prop-spinning since Redmond's volunteers reclaimed it from the prairie.

Redmond's airpark was only one of 81 bases constructed by CAP volunteers up to the end of 1944, in spite of the press of wartime duties and shortages of materials.

The Michigan Wing was the first to build an airport from the bottom up. When civilian fliers in the Detroit area were cut off from existing fields back in the summer of 1942, they banded together, picked a site at Utica, and fashioned a hundred-thousand-dollar pilots' paradise on what was once a 150-acre farm.

Everything—land, materials, and labor—was volunteered by members of the Patrol and their friends. Using picks and shovels, scrapers and bulldozers, hammers and saws—week-end work parties filled in a small lake, laid out four 2,200-foot runways, and converted a cow-barn into a handsome clubhouse, with a control tower where the gable had formerly been. Inside the building were offices, classrooms, and a photo lab so well equipped that when National Commander Johnson's picture was snapped as he stepped from the running board of his car on the day of the field's dedication in October, the finished print was presented him a few minutes later.

Sweating alongside the mechanics, truck-drivers, and factory hands in Lieutenant George Ott's labor crews were doctors, lawyers, and schoolteachers—many of them strangers to anything resembling exercise. Lieutenant Tom Falbo, an optician who was later prominent in courier work, was chief of the bulldozer operators. He spent every spare minute in the saddle. Men like Dr. F.L. Holland and Attorney Anthony Renne were among others who collected blisters and aching muscles on the project. Women helped, too, cooking hot meals for the hungry males, and frequently taking a turn with ax and shovel.

Wings Airport became the center of Michigan's major flight operations—bombing practice, message dropping and pickups, the parachuting of supplies, and other training not conveniently carried out on busy military or commercial ports.

Baltimore fliers, balked by zone restrictions along the East Coast early in the war, developed a base of their own at Westminster, Maryland, with easy reach of the city. It was another case of being willing to work in order to fly. Members raised the necessary cash to buy the site, built a hangar out of salvage, and paved their runways with three carloads of cinders donated by a railroad company. All who wanted to fly did their stint with shovel and wheelbarrow before the new port was set to go. A wing mobilization, replete with rows of planes, parades, and drum-thumping, accompanied the dedication in June 1943. Only fly in the ointment came when Washington's Capitol squadron vanquished the Baltimoreans and copped the cup for wing competitive drill.

Smaller communities followed the lead of the big cities. At Potsdam, New York, Clarkson College owned an airport site but didn't plan to develop it for the remainder of the war. Then along came Lieutenant Frank Roberts, leader of Potsdam's Flight C, who secured the permission of the college fathers to condition the field with CAP volunteers. A month later, more than 1,000 man-hours of labor had been contributed by senior and cadets. The village board helped out by granting \$300 to remodel a transplanted haybarn into a two-plane hangar. Damon Field was opened Labor Day, 1944.

One practical CAP pilot, Farmer Walter Kennon of Union City, Tennessee, found a homegrown solution to the airport problem. He merely cut an "X" in a large, flat alfalfa field and moved it every couple of weeks. Kennon figured that in four years the alfalfa would enrich his acres so he could plant corn or cotton then, at which time he'd shift his alfalfa and runways to another part of his farm.

Besides the 81 new airports constructed by the Patrol, major improvements had been made on 108 fields up to 1945. These improvements included such items as lengthening of runways, installation of markers, safety devices, and lights, and the building of hangars,

control towers, and clubhouses. Probably the most unusual remodeling job was done by Toledo Squadron No.1, which converted a nightclub near their airport into CAP headquarters, with the mirrored ballroom becoming a deluxe drill hall.

Even more important than the building and remodeling of airports was the Patrol's spectacular success in keeping airports open. That had been the first major assignment handed to the wings at the beginning of the war. A survey released in 1945 revealed that out of 1,600 fields then open for civilian flying, at least a third would have been shut down had it not been for CAP efforts.

Keeping the ports open was no easy job. Under wartime regulations, guards were required for even the smallest fields. In scores of places, CAP volunteers—knowing that the right to fly meant little unless there were fields to operate from—lugged their own shotguns from home and pulled guard duty at the airports. If there was grass to cut or runway ruts to fill, they took care of that, too. And there were many women who came out during the day to sign out flights and fill in clearances.

The requisitioning of private planes for war training, the year-long ban on aircraft rentals for private flights, and the shortage of manpower, spare parts, and gasoline knocked out a lot of the operators. Only through furnishing guards, buying flight instruction, and sometimes by taking over the entire management of certain fields, did CAP succeed in keeping many a community from being grounded.

As of early 1945, no less than 215 airports were CAP fields—owned, operated, or managed by local units of the Patrol. The only way for some ports to continue was through non-profit management by CAP. In taking over a field, the Patrol never competed with private enterprise. It administered pre-flight instruction only, free of charge to CAP members and cadets. Flight training and aircraft rentals were left strictly in the hands of the commercial operators, many of whom were kept in business by CAP patronage or set up in business with the help of the civilian pilots. Plenty of airmen who saw combat during the war took their first flights on hometown fields which owed their existence to CAP efforts.

Sometimes CAP personnel traveled long distances to buy flying lessons. At Farmington, Missouri, Lieutenant Marie Umfleet, one of America's first woman pilots, sparked a learn-to-fly movement that had the Farmington group trekking 70 miles every week to the Cape Girardeau airport. Out West, aviation enthusiasts from San Francisco frequently journeyed all the way to Reno on weekends in order to escape the coast's ban on private flying, while scores of other Californians sought inland fields in their own state.

The airfields constructed or kept open by the CAP saw another important war service. Time after time, AAF and Navy fliers in distress were able to step out of their planes alive, thanks to emergency landings on CAP bases. A typical story is that of an AAF major and a lieutenant, lost over the mountains of Virginia at night in an AT-6, who were guided by autos driven by alert CAP members to a newly constructed airport near Front Royal. Headlights illuminated the runway as the plane limped in with only enough gas to keep aloft another five minutes. On another occasion, CAP classes were in session at the Eureka, California, airfield when a plane was heard circling the city. The pilot dropped a flare and immediately the squadron members turned on all hangar and auto lights and focused a spotlight on the windsock. The plane, a two-motored AAF ship, came in safely. It was off course and, like the craft that landed at Front Royal, nearly out of fuel. If the CAP hadn't guided them, the two officers would have been forced to bail out and their \$70,000 plane would have been scattered over the countryside.

As the war moved into its final year, CAP's active-duty missions slowed down to a walk. The Army couriers wound up most of their business by middle 1944, the towing and tracking units suspended operations early in 1945, and only the industrial couriers and the missing plane-spotters continued to function—and these at a diminishing pace—through the spring of 1945 as the Allies mopped up in Germany.

Twenty CAP members from the New England area, not young enough or in good enough physical trim to fly for the AAF, very nearly saw action in the Burma Theater with the British 14th Army. They were volunteers for an air ambulance squadron recruited by the American Field Service of the Red Cross, and their mission was to be the evacuation of wounded troops from forward areas to rear-line airstrips in highly maneuverable L-4 ambulance planes.

An intensive training course, with British officers from the CBI assisting, was given to the unit at Laconia, New Hampshire, during the spring and early summer of 1945. In charge was Lieutenant Colonel John. F. Brown, New Hampshire Wing commander, who was an ambulance driver and later a pilot during World War I. When V-J Day came, three of the foreign-duty volunteers were already in London, and the remainder were aboard a ship in New York Harbor, all set to go.

As active-duty missions waned with the approach of the end of the war, more emphasis was placed on cadet training. Returned veterans, welcomed into CAP, bolstered training staffs. Attendance at summer encampments promised to hit an all-time high. About this time, the cadet recruiting goal, announced as 250,000 the previous summer, was revised downward to a 100,000 figure. The object, explained Major Ken Hoyt of National Headquarters, was to stabilize the junior organization as soon as the desired figure was reached and to lay greater stress on giving better instruction to fewer cadets.

The fact that membership in the corps numbered 80,000 at the time did not mean that only 20,000 additional youngsters between the ages of 15 and 17 were to be recruited. The annual turnover, due to the draft, graduation into the senior group, and miscellaneous causes, was nearly 50 per cent. Then, too, units were instructed to build up waiting lists of at least 50 applicants for each 100 cadets, so squadrons and flights could be maintained at full quota strength as vacancies occurred.

National Headquarters of the CAP was shifted from New York City to Fort Worth, Texas, in April 1945, and placed under the supervision of headquarters of the AAF Training Command, headed by Lieutenant General Barton K. Yount. Under the new setup, the country was divided into five blocks of states, military activities of the wings being coordinated by the three flying training commands and the two technical training commands of the AFTRC. At the same time, AAF liaison officers were assigned to each of the 48 states wings to assist with cadet training and to speed the flow of surplus training aids and manuals to CAP classes.

Soon after the move to Fort Worth, Colonel Johnson was placed on leave from the Civil Air Patrol to serve with the Foreign Liquidation Commission, which directed the disposal of surplus war property and equipment in foreign countries. This assignment took him to most of the countries of the world and kept him away until the early spring of 1946. During this period, Colonel Blee, the Deputy Commander, served as Acting National Commander under appointment by the Commanding General of the Air Forces.

Germany fell in May 1945 and Japan bowed out in August, scorched by fire-bomb raids on her industrial cities and reeling from the atomic thunderclaps unleashed on Hiroshima and Nagasaki. With the end of hostilities, rumor insisted that the Civil Air Patrol would wind up its affairs and disintegrate. Its wartime job was over, the emergency was past, there was no further need—so some thought.

Many members, supposing their work done, packed their uniforms in mothballs, took up golf on weekends, and once again paid attention to professions and businesses that had often been neglected during the war years. It was inevitable that some of the men and women who had cheerfully volunteered their time, energy, and frequently their money during the emergency should lose interest in the months that followed Japan's surrender.

But the majority of the 135,000 seniors and cadets in CAP, encouraged by headquarters and held together by the stick-to-it spirit of wing, group, and squadron commanders, saw things in a different light. As a semi-military patriotic organization and as the chief liaison between the AAF and the American public, the CAP still had a job to do.

With the ending of wartime missions, it became possible to place more stress on recreation. National Headquarters encouraged good fellowship as a necessary supplement to more serious phases of the work. Advocated the *CAP Bulletin*: "Now that gasoline rationing is ended, the auto driver no longer looks with disapproval upon planes in the sky, burning fuel which was denied to motorists. Air shows which bring thousands of spectators to the airports can now be encouraged. Aerial tours and visits to neighboring units can be arranged. The dawn flights and aviation breakfasts that were so popular on prewar Sundays can be resumed on a much larger scale."

A treasure hunt staged by the San Antonio group combined practical field training with an old-fashioned get-together. A secret base was set up in advance where members and their friends were to rendezvous for a barbecue. The object was to follow the directions of ground panels to guide the pilots and their cadet observers to the assembly point. The treasure hunters, eyes sharpened by their appetites, all managed to make connections with the barbecue before starvation set in.

CAP members had helped to obliterate every air-marker in the United States during the early days when enemy air raids were feared. Now they turned to the far more difficult task of restoring the old markers and painting hundreds of new ones. The program carried out according to CAA specifications, got going even before the war ended and had become a major project by the time peace arrived. Avowed purpose of the CAP was to air-mark "every city, town, and crossroads hamlet."

Lieutenant Colonel Harold R. Smethills, then Colorado's wing commander, asserted that "perhaps the chief hazard in contact flying is the danger of becoming lost. This hazard is almost entirely eliminated when a pilot can ascertain his exact whereabouts and orient himself by merely looking down and reading a sign as he passes over a town."

When the colonel uttered those words, a lot of grizzled pilots with thousands of hours to their credit added a devout "amen." They knew from grim experience that not only the rookie fliers can get lost on cross-country hops.

Yellow markers placed by CAP give the name of the town, the longitude, and the latitude. An arrow points to the nearest airport and the distance is indicated. The markers are big enough to read, with good visibility, from an altitude of at least 3,000 feet. Some of the aerial signposts decorate the sides of barns, grain elevators, and cliffs, but most are painted on rooftops where they can be spotted from every direction.

Early leaders in the nation-wide CAP air-marking campaign were North Carolina, Maryland, and Utah. Midway in 1946, the Tarheels had marked 115 communities. Their procedure was to hire a sign-painter to travel from town to town at the rate of \$75 per marker. Cadets in designated communities called on local merchants for contributions, limiting individual donations to \$15. When the site had been selected and the money raised, the painter moved in. In Maryland, Utah, and most of the other states, the painting was done by CAP members themselves, and the paint, brushes, and templates were donated by merchants and civic groups.

When the PT-17's loaned to CAP by the AAF were withdrawn from flying status several months after V-J Day, morale sagged. And it didn't help matters when, early in 1946, the wings were informed that direct financial support for the CAP program was to end on March 31.

It took a steady hand on the helm to weather the storms that buffeted CAP the winter following the war's end, and it required endless work in the field to prevent the weaker

squadrons and flights from folding. Members were crying for flyable planes, more training aids, additional support from the Air Forces. Some of the CAP wing commanders expressed grave concern over what they considered AAF apathy toward their program. Colonel Blee devoted most of the winter to an air tour of the wings, conferring with wing commanders and their staffs, and helping them to meet this difficult situation.

In conferences with CAP wing commanders, held in Washington in January, February, and March of 1946, the Air Forces went to great lengths to put across to the wing commanders and the rank and file of CAP members the fact that, in spite of the reverses that the auxiliary organization had suffered during the confused period following the war's end, the CAP was destined to play an important role in peacetime America's plans.

As the crowning event of the Wing Commanders' Conference held in Washington in late February and early March, 1946, the 48 state CAP leaders gave a dinner in honor of the President of the United States, the 79th Congress, and the Commanding General of the Army Air Forces. It was one of the most illustrious turnouts the capital had seen in a long time. President Harry S. Truman, Speaker of the House Sam Rayburn, some 300 members of Congress, and more than 50 AAF generals attended. Colonel Johnson, who was then about to complete his assignment with the Foreign Liquidation Commission, served as toastmaster. Among the honored guests was the newly appointed Assistant Secretary of War for Air, the Honorable W. Stuart Symington. A table was set for each of the 48 states, with the wing commander as host to his congressional delegation and to one of the AAF generals.

When the dishes had been cleared that evening, President Truman, on behalf of the people of the United States, thanked the Civil Air Patrol for its wartime service. That was the first of many glowing tributes paid to the volunteer organization. One of the most encouraging speeches came from General Carl Spaatz, the new commander of the Air Force, who compared the CAP of the early days to the volunteer bucket-brigades that once safeguarded communities from fire.

"There was also a time, not long ago, when America was in danger of something worse than fire," he said. "The Air Force was not prepared to meet that danger, not equipped for adequate defense of the country, much less for offense overseas. It was then, in 1941, that the Civil Air Patrol was founded, somewhat as a firebucket project. That, too, was the volunteer spirit."

General Spaatz reviewed the organization's wartime contribution, then restated CAP's role as an auxiliary to the AAF and pointed to its future function as "a liaison between the planners of our air strength and our pilots and navigators of tomorrow. . . . We must pass on our air experience—not only in the Air Forces, but in every section of the country."

And, in conclusion, this encouraging prophecy: "Sparkling the advance will be the Civil Air Patrol."

The General backed up his words with action. Along with increased training aids, more help from AAF-CAP liaison officers, and enlarged facilities for cadet encampments, Spaatz backed the fund-raising program of the wings by assigning Air Force planes and personnel to participate in the air shows that the CAP held in every state during the spring and summer of 1946. Aerial packets crisscrossed the nation to augment the CAP portion of the programs and to acquaint the public with the very latest in flying equipment. Among the dozen or so planes that made up a packet were a B-29 Superfortress, a P-80 jet fighter, a helicopter, a hospital ship complete with demonstration crew, plus assorted P-51s, P-47s, and A-26s. As their contribution to each program, the AAF fliers put on displays of precision flying that had the customers gasping. For the most part, the air shows were a roaring success, and the dollars they brought into CAP coffers helped to put most of the states on a solid financial footing for the rest of the year.

Things were definitely looking up for the Patrol. Then came the biggest boost of all on

July 1, 1946, when President Truman signed the bill that gave the Civil Air Patrol, as a "patriotic and educational organization," the first national charter of its kind to be approved by the Congress in thirteen years. The proposal passed the House and Senate without a dissenting vote.

Congress was well acquainted with CAP's record, and members of the House of Representatives still remembered the ringing speech delivered during the war by the Honorable Hatton W. Sumner of Texas, who concluded his address regarding the Civil Air Patrol with these words:

"My interest was aroused in this organization because of its demonstrated unselfish, self-reliant willingness-to-do-something-about-it, fit-to-live-in-a-democracy sort of spirit—the sort of spirit which makes free government possible."

Principal objects of CAP under its charter are:

1. To provide an organization to encourage and aid American citizens in the contribution of their efforts, services, and resources in the development of aviation and maintenance of air supremacy, and to encourage and develop by example the voluntary contribution of private citizens to the public welfare.
2. To provide aviation education and training, especially to its senior and cadet members; to encourage and foster civil aviation in local communities; to provide an organization of private citizens with adequate facilities to assist in meeting national or local emergencies.

The Civil Air Patrol, already an Air Force auxiliary, had earned the right to share the distinguished company of such organizations as the American Red Cross, the American Legion, and the Veterans of Foreign Wars.

For a period of about four months, beginning on August 5, 1947, command jurisdiction of the CAP was shifted to the Air Force's Air Defense Command. General Spaatz agreed that Brigadier General F.H. Smith, Jr., National Commander of the CAP, should retain direct command of the Patrol in Washington, but that overall AAF jurisdiction would rest with Lieutenant General George E. Stratemeyer's Air Defense Command Headquarters at Mitchel Field, Long Island, New York. Under this setup, CAP activities and policies did not change; the Patrol operated as a separate ADC unit—similar to its six numbered air forces.

General Smith instituted a major change in the CAP policy when he appointed the Civil Air Patrol Board to act in an advisory capacity on civilian aviation matters and in formulating broad policies pertaining to the Patrol. The Board is made up of seven CAP wing commanders from various parts of the United States. Colonel George A. Stone of Ohio was named chairman. Other members are Colonel Harry K. Coffey of Oregon, Colonel D. Harold Byrd of Texas, Colonel Leverett Davis of Idaho, Colonel J. Michael Morris of Arizona, Colonel Fay M. Thomas of Michigan, and Colonel Stuart C. Welsh of New York.

Judge Hatton W. Sumner, Texas Congressman of 34 years standing, was appointed Colonel, CAP, and made General Counsel for the CAP Board and for National CAP.

When the National Security Act of 1947, popularly known as the Unification Act, gave the United States Air Force autonomy, a number of changes affected the CAP. CAP was once more designated an independent activity operating directly under Headquarters, United States Air Force. Additional duties were given to its control in the field of youth education and in search and rescue work. General Smith moved over to General Spaatz' Air Staff and Brigadier General Lucas "Vic" Beau assumed command of the CAP. General Beau, lately returned from a long tour of overseas duty in the European Theater, is a veteran of World Wars I and II. He has, as well, an outstanding record of achievement for many duties pertaining to the civilian side of aviation.

CAP LOOKS AHEAD

At Rehoboth and Atlantic City, where the first coastal patrol sub-spotters winged out over the gray Atlantic in March 1942, summer vacationers bathe in the surf and drowse in the warm sun. And along Cape Hatteras, where merchant seamen once said their prayers in a dozen tongues as they awaited the shattering impact of a Nazi torpedo, only the seasonal gales test the mettle of those who man the ships.

No longer do ack-ack batteries pop away at sleeve targets towed by "crazy" civilians who came back for more even after stray flak ripped into the hides of their frail planes. The "airline" that once crossed and recrossed seventeen western states, putting 100 flights into the air for the Second Air Force every day for a year and a half, has been out of operation for several seasons now. And along the twisting Rio Grande and in the sandy, sagebrush country of New Mexico and Arizona, the hum of Southern Liaison aircraft is no longer heard by ranchers and Mexican field hands and javelina hogs.

The sub-spotting, the towing and tracking, the courier operations, and the flights along the Mexican border are all part of history. The pilots who flew the featherweight planes are scattered throughout the 48 states, as are the observers, the mechanics, and the women who typed the orders and manned the plotting boards.

But some of the familiar missions are still flown—those that are needed in time of peace as well as in war. The CAP continues to serve as the air arm of the Red Cross when floods and tornadoes strike, and it sends mercy planes into isolated regions with speedy medical aid for stricken individuals. Searches for missing AAF and civilian aircraft still occur, particularly in mountainous regions; and seasonal fire-spotting forays help to guard some of the nation's richest timberland.

These emergency operations, however, comprise only a fraction of the Civil Air Patrol's many-sided postwar program—a program dedicated to the advancement of aviation and aimed at keeping the American public continually aware of the vital importance of air supremacy to national security and world peace.

A primary purpose of the CAP is to make John Citizen as air-minded as he is car-minded. Through air shows, assemblies, news stories, and the daily personal contacts of cadets and senior members, the Patrol serves as a clearing house for aeronautical information. Citizens interested in advancing aviation can work through the CAP, veterans can use it as a rallying point, and such organizations as the Air Force Reserve, the Air National Guard, the National Aeronautic Association, and the Air Scouts can enlist its help. In dozens of ways, the CAP has become one of the trail-blazers to the Air Age.

Great emphasis is being placed on the cadet training program. The purpose of the junior CAP organization is to provide practical ground and pre-flight instruction in aviation subjects, along with special training in honor, discipline, and leadership, for a continuing group of 100,000 or more carefully selected American boys and girls. The course of instruction included in this program aims to give a full knowledge of the fundamentals of aviation and to train a reserve pool of personnel who will be able to advance themselves in aviation careers.

The high schools in a number of states have installed CAP aviation training as a part of their curricula. In addition, many of the schools with shop facilities are working hand in

hand with the Patrol to push the nation-wide glider program launched early in 1947.

The junior outfit has been strengthened by the return of hundreds of AAF veterans to instruction staffs and by the wholehearted support of Air Force Headquarters, which furnished units with many of the same types of training aids as are used by Aviation Cadets.

Summer encampments continue to bring handpicked teenagers into close contact with GI's at many larger Air Force installations. For periods ranging from one to two weeks, cadets eat Army chow, drill like seasoned soldiers, march to classes in mechanics and communications, and watch grease-monkeys and pilots in action. At bases where facilities are available for their proper care, girl cadets are permitted to attend the encampments. In several wings, separate camps have been set up for the girls, such as Illinois' East Bay Camp.

Flight scholarships for outstanding cadets, enabling the recipients to obtain time from commercial flying schools, are granted in most localities. Awards are made on the basis of scholastic standing, both in school and in CAP training courses; general attitude and character; regularity of attendance at meeting; and military bearing. Thanks to the scholarships, scores of young people have already earned their wings.

Pre-flight training for all members is still an important part of the CAP program. Actual flight instruction is left to independent operators, but every member takes a series of courses which give him a foundation to build on when he goes after his pilot's license. Three training brackets—basic, secondary, and advanced—carry members from the ABC's of flight theory into highly technical phases that fit them for special assignments or for service as instructors.

Two important boosts to training have come about since the war's end. Official credit is now given to Air Force enlistees for training received as CAP cadets and to Air Force Reserve officers for service as volunteer CAP instructors. Formerly, cadets entering the AAF benefited from their contact with military and technical features of their course—but only unofficially. Now their pre-training goes on record and often results in quicker promotions and more advantageous placement in jobs for Air Force volunteers.

The first postwar assignment undertaken by the Patrol was to help air veterans translate their AAF skills into civilian jobs—a task still being carried on wherever the need exists. Thousands of pilots, bombardiers, navigators, radiomen, gunners, and ground personnel were recruited into the AAF by the Civil Air Patrol. Consequently, when these men were released from active duty, both Air Force Headquarters and members of the Patrol felt a moral responsibility for helping them adjust to civilian status.

The CAP Employment Service for Air Force veterans was organized in March of 1946 at the request of General Carl Spaatz, who pointed out, "The task of the moment was once to turn young men into soldiers; it is now to convert them back into the ways of citizens."

CAP units have veterans' placement committees which work with employers, civic groups, and employment services to help steer veterans into job opportunities.

Flying clubs are being encouraged by CAP because they place actual air experience within reach of the majority of Patrol members—at a minimum of expense and under proper safeguards. By pooling their cash and entering into the joint ownership of an airplane, a group of individuals not in a position to maintain their own sky-jeps can pile up air time and maintain flying proficiency.

Realizing the vital role which radio plays in all aircraft operations and the importance of maintaining a large reserve pool of trained radio operators and technicians, the Air Force has made available to the CAP two radio frequencies (2374 Kc. and 148,140 Kc.) for ground-air and point-to-point service on a nation-wide scale. These frequencies are restricted to use in training and in tactical maneuvers of a military type. The Patrol is now developing a radio communication network linking all parts of the United States, to be used in training and in the performance of emergency missions.

As a contribution to the general advancement of aviation, CAP wings are engaged in

special projects such as air-marking, mapping of emergency landing fields, and surveying of dangerous flying areas. The CAA continues to cooperate with the Patrol in its efforts to mark the skyways as clearly as any highway. In some states—Pennsylvania and Arizona were among the first—entire counties have been blanketed with the markers. The charting of emergency landing fields has been most prevalent in the mountain states, as have surveys of dangerous flying regions.

One of the first CAP safe flying surveys came out of Colorado, where 28 peaks have an elevation of more than 14,000 feet and where so-called “bad winds”—updrafts and down-drafts—have taken a heavy toll of lives. The route survey for the light plane was championed by Major Rex Howell of Grand Junction and other CAP officials. It was completed as a joint project of the Colorado Wing and the office of the State Director of Aeronautics, the latter being headed by Major General John F. Curry, Retired, the Patrol’s first national commander.

Major Bill Madsen, then Colorado’s adjutant, and William Nelson, aviation supervisor from General Curry’s office, visited scores of airports in a Taylorcraft and interviewed 75 experienced mountain pilots, fixed-base operators, and airport managers in rounding up the necessary data. Out of these interviews and a series of flying experiments came a map of safe flying routes and danger areas, plus a report showing that mountain flying is not unduly hazardous if the pilot is acquainted with the special problems involved.

The Arizona Wing, under Lieutenant Colonel Mike Morris, followed Colorado’s lead and produced a similar survey, and most of the other Western states plan to follow suit.

Other special projects include formation of rifle and pistol teams in CAP units, with the assistance of the National Rifle Association, and promotion of the building and flying of model aircraft among youngsters—since model-building is the logical starting point for an understanding of aviation.

Also on the Patrol’s docket is the furthering of more airparks around the country in order to give expanding civil aviation the space it needs. In this connection, the building of memorial airports by communities planning to honor their war heroes has been urged by the CAP.

“Because a flying field is a center of activity,” Colonel Johnson said repeatedly, “it can be a living memorial not only to those who have given their lives but also to the majority who have come home.”

The late National Commander recommended the buying or optioning of fields as close as possible to the community. Don’t make plans too expensive, he advised—a layout of 150 to 200 acres will do. Flying can start when grading and sodding is finished. Paving, buildings, and extensions may come later.

“A city without an airport,” the Colonel stressed over and over again, “will soon be as far behind the times as the one without a railroad station.”

The Civil Air Patrol’s wartime service is history, and the organization’s conversion to peace has been accomplished. Now begins CAP’s “grass-roots” campaign, supported by nearly 1,500 units in more than 1,000 cities and towns, to make America the most air-minded nation in the world.

Air power does not signify alone the winged might of the Armed Forces. It also means hometown airparks, hundreds of thousands of qualified civilian pilots, swarms of sky-jalopies and the mechanics to keep them purring, big and little aircraft plants, and a younger generation busy learning aviation from the ground up. It means an aviation industry kept alive and ready for emergency expansion by peacetime prosperity. It means an American people who in the air have found another dimension of life.

APPENDIX A: CIVIL AIR PATROL WARTIME FATALITIES

ACTIVE DUTY MISSIONS

Coastal Patrol

<i>Name and Home Address</i>	<i>Unit Number and Location</i>	<i>Date of Death</i>
1st Lt. C.W. Andrews Springfield, O.	CAP CP No. 14 Panama City, Fla.	Oct. 30, 1942
1st Lt. Ben Berger Denver, Colo.	CAP CP No.1 Atlantic City, N.J.	Apr. 25, 1943
1st Lt. Curtis P. Black N. Olmsted, O.	CAP CP No. 14 Panama City, Fla.	Jan.4, 1943
1st Lt. Welles L. Bishop Meriden, Conn.	CAP CP No. 20 Augusta, Me.	Feb. 2, 1943
1st Lt. Guy T. Cherry, Jr. Kinston, N.C.	CAP CP No. 21 Beaufort, N.C.	Nov. 16, 1942
1st Lt. Frank M. Cook Concord, N.C.	CAP CP No. 16 Manteo, N.C.	Dec. 21, 1942
1st Lt. Julian L. Cooper Nashville, N.C.	CAP CP No. 16 Manteo, N.C.	Dec. 21, 1942
2nd Lt. Martin E. Coughlin Kansas City, Mo.	CAP CP No.11 Pascagoula, Miss.	Feb. 26, 1943
1st Lt. Paul W. Davis St. Louis, Mo.	CAP CP No.11 Pascagoula, Miss.	Feb. 26, 1943
1st Lt. John H. Dean Fort Worth, Tex.	CAP CP No. 10 Beaumont, Tex.	Nov. 16, 1942
2nd Lt. Donald C. Ferner Tulsa, Okla.	CAP CP No. 14 Panama City, Fla.	Apr. 3, 1943
1st Lt. Delmont B. Garrett Media, Pa.	CAP CP No. 2 Rehoboth, Del.	Mar. 19, 1943
1st Lt. William B. Hites Jamestown, N.Y.	CAP CP No. 20 Augusta, Me.	Feb. 2, 1943
2nd Lt. D.L. King Spartanburg, S.C.	CAP CP No. 8 Charleston, S.C.	Feb. 9, 1943
1st Lt. Alfred H. Koym Rosenburg, Tex.	CAP CP No. 10 Beaumont, Tex.	Nov. 11, 1942
Capt. H.L. Lundquist Gastonia, N.C.	CAP CP No. 21 Beaufort, N.C.	June 27, 1943
1st Lt. L.E. Milkey Sandusky, O.	CAP CP No. 14 Panama City, Fla.	Oct. 30, 1942
1st Lt. Gerald G. Owen West Farmington, O.	CAP CP No.14 Panama City, Fla.	Apr.3, 1943
2nd Lt. C.L. Rawls Charleston, S.C.	CAP CP No.8 Charleston, S.C.	Feb. 9, 1943
1st Lt. Charles Shelfus Columbus, O.	CAP CP No. 2 Rehoboth, Del.	July 21, 1942
1st Lt. H.O. Swift Stanton, Del.	CAP CP No.2 Rehoboth, Del.	Mar. 6, 1943
1st Lt. James C. Taylor Baton, Rouge, La.	CAP CP No.10 Beaumont, Tex.	Nov. 11, 1942
2nd Lt. Paul D. Towne Peoria, Ill.	CAP CP No. 2 Rehoboth, Del.	Mar. 19, 1943
1st Lt. Alvie T. Vaughen Galion, O.	CAP CP No. 14 Panama City, Fla.	Jan. 4, 1943
1st Lt. Robert D. Ward Dallas, Tex.	CAP CP No. 10 Beaumont, Tex.	Nov. 16, 1942
F/O D.S. Williams Wallace, N.C.	CAP CP No. 21 Beaufort, N.C.	June 27, 1943

F/O Bayard S. Henderson Lancaster, Calif.	Southern Liaison Patrol CAP SLP No.1 Laredo, Tex.	Jan. 17, 1944
2nd Lt. H.M. Hewitt Junction City, Ore.	CAP SLP No.1 Laredo, Tex.	Jan. 17, 1944

First Air Force Sub-Depot Courier

<i>Name and Home Address</i>	<i>Station</i>	<i>Date of Death</i>
2nd Lt. Andre E. Maye Bottsford, Conn.	Bradley Field, Conn.	Sept. 14, 1943

Second Air Force Courier

<i>Name and Home Address</i>	<i>Station</i>	<i>Date of Death</i>
2nd Lt George W. Darling Pratt, Kans.	Colorado	July 11, 1943
Isaac R. Mastin Wichita, Kans.	Kansas	Feb. 19, 1944
Capt. Harry A. Maughan Walla Walla, Wash.	Colorado	Oct. 16, 1943
2nd Lt. Carl A. Nelson Salt Lake City, Utah	Utah	Mar. 20, 1943
Kenneth M. Wilkinson Ashville, Kans.	Kansas	Jan. 29, 1944

Tow Target and Tracking Service

<i>Name and Home Address</i>	<i>Unit Number and Location</i>	<i>Date of Death</i>
F/O Norman L. Buckey Wahington, D.C.	CAP TTU No. 21 Driver, Va.	Jan. 22, 1944
Capt. Clifton K. Hyatt Miami, Fla.	CAP TTU No. 7 San Jose, Calif.	Dec. 20, 1944
1st Lt. Alfred C. Kendricks Gastonia, N.C.	CAP TTU No.21 Driver, Va.	Jan. 22, 1944
2nd Lt. Roy G. Paite Philadelphia, Pa.	*Flushing, N.Y.	May 13, 1942
2nd Lt. C. James Parnell Chester, Va.	*Langley Field, Va.	Jan. 22, 1943
Capt. Gordon M. Pyle New York, N.Y.	*Flushing, N.Y.	Oct. 18, 1943
Capt. Raoul E. Souliere Biddeford, Me.	CAP TTU No. 22 Clinton, Md.	July 25, 1944

*Tracking detachments which operated prior to time organized Tow Target and Tracking Units were established.

Missing Aircraft Search

<i>Name and Home Address</i>	<i>Station</i>	<i>Date of Death</i>
H.W. Armstrong Redwood City, Calif.	California	Mar. 23, 1945

Keith Clasby Colorado Springs, Colo.	Colorado	Apr. 7, 1944
Bruce W. Flegal Roswell, N.M.	New Mexico	Mar. 12, 1944
Harry C. Mulroy Roswell, N.M.	New Mexico	Mar. 12, 1944
Leo Schuth Colorado Springs, Colo.	Colorado	Apr. 7, 1944
James W. Wooldridge San Francisco, Calif.	California	Mar. 23, 1945

MISCELLANEOUS WARTIME MISSIONS

Other CAP Missions

<i>Name and Home Address</i>	<i>Mission</i>	<i>Date of Death</i>
John T. Burke Fort Worth, Tex.	Flight for Inf. Tng. Repl. Center, Fort Worth, Tex.	June 10, 1943
2nd Lt. Dayton C. Davis Cleveland, O.	War Bond Campaign, Erie, Pa.	Sept. 7, 1943
1st Lt. Fred S. Englert New Orleans, La.	Simulated Bombing Mission, New Orleans, La.	Sept. 16, 1943
2nd Lt. Irwin Thomas Lawson Sault Ste. Marie, Mich.	Training Flight, Iron Mt., Mich.	Aug. 10, 1945
2nd Lt. Meriweather J. Purdy Cambridge, O.	Courier Mission, Chicago, Ill.	Jan. 13, 1944
Sgt. Frederick P. Streisel Cleveland, O.	War Bond Campaign, Erie, Pa.	Sept. 7, 1943
Sgt. George R. Stubblefield Waterloo, N.Y.	Recruiting Drive, Warners, N.Y.	Aug. 6, 1944
Cadet S/Sgt. James W. Taylor Claymont, Del.	Summer Encampment, Dover Army Air Field, Del.	Aug. 23, 1944
2nd Lt. Doerr Celia Walker Detroit, Mich.	Parachute Jump, Adrian, Mich.	July 16, 1944

Operation L-Type Aircraft on CAP Cadet Program

<i>Name and Home Address</i>	<i>Wing</i>	<i>Date of Death</i>
Marvin Aaron (Prospective Cadet) Philadelphia, Pa.	Pennsylvania	June 23, 1944
Lt. Melvin L. Alspaugh Belle Glade, Fla.	Florida	Feb. 23, 1944
Lt. William B. Haier Minneapolis, Minn.	Minnesota	Apr. 30, 1944
2nd Lt. Charles R. Hoser Norristown, Pa.	Pennsylvania	June 23, 1944
Capt. George J. Main Minneapolis, Minn.	Minnesota	Apr. 30, 1944
Major Kenneth E. Morey Adrian, Mich.	Michigan	May 14, 1944
Lt. John Wallace Caney, Kans.	Kansas	Apr. 29, 1945
Capt. Irvin S. Wemmer Caney, Kans.	Kansas	Apr. 29, 1945

APPENDIX B: WING COMMANDERS

(as of November 1, 1947)

<i>Wing</i>	<i>Name¹</i>	<i>Dates</i>
ALABAMA	Lt. Col. Harold F. Wood	12/1/41—3/22/46
	Lt. Col. Howard S. Banton	3/22/46—to date
ARIZONA	Maj. Carl C. Kneir	12/1/41—2/17/43
	Lt. Col. Frank W. Beer	2/17/43—8/20/45
	Col. J.M. Morris	8/20/45—to date
ARKANSAS	J. Gilbert Leigh	12/1/41—3/11/42
	Col. Rex P. Hayes	3/11/42—to date
CALIFORNIA	Col. Bertrand Rhine	12/1/41—to date
COLORADO	W.W. Agnew	12/1/41—4/8/42
	H.H. Andregg	4/8/42—7/13/42
	J.D. Spencer	7/13/42—8/7/42
	Lt. Col. Harold R. Smethills	8/7/42—8/22/45
	Lt. Col. John A. Smethills	8/22/45—9/18/47
	Col. Harold R. Smethills	9/18/47—to date
CONNECTICUT	Lt. Col. Thomas H. Lockhart	12/1/41—8/10/44
	Lt. Col. William T. Gilbert	8/10/44—4/8/46
	Lt. Col. Charles B. Shutter	4/8/46—6/5/47
	Lt. Col. Nancy H. Tier	6/5/47—to date
DELAWARE	Maj. Holger Hoiriis (deceased)	12/1/41—8/7/43
	Maj. Herman S. Miller	8/12/42—6/29/43
	Maj. Don Seevers	6/29/43—10/12/44
	Maj. James P. Hanley	10/12/44—12/8/44
	Lt. Col. William J. Simpson	12/8/44—12/19/46
	Lt. Col. Walter A. Caskie	12/19/46—to date
FLORIDA	Col. Wright Vermilya	12/1/41—4/6/43
	Maj. Richard P. Robbins	4/6/43—2/17/44
	Lt. Col. Zack T. Mosley	2/17/44—3/31/46
	Col. Wright Vermilya	3/31/46—6/1/47
	Col. Lawrence Hickman	6/1/47—to date
GEORGIA	Lt. Col. Winship Nunnally	12/1/41—10/15/45
	Lt. Col. Jesse L. Dobbins	10/15/45—to date
IDAHO	Maj. A. A. Bennett	12/1/41—4/29/43
	Col. Leverett Davis	4/29/43—to date
ILLINOIS	Logan A. (Jack) Vilas	12/1/41—4/28/42
	Herman Lacey	4/28/42—5/20/42
	James R. Graham	5/20/42—8/4/42
	Maj. Robert K. Belt	8/4/42—3/1/43
	Lt. Col. C.W.H. Schuck	3/1/43—5/26/45
	Col. Gordon A. DaCosta	5/26/45—to date
INDIANA	Col. Walker W. Winslow	12/1/41—to date
IOWA	Maj. Daniel F. Hunter	12/1/41—3/2/44
	Col. Don C. Johnston	3/2/44—to date
KANSAS	Col. J. Howard Wilcox	12/1/41—9/15/47
	Lt. Col. Paul D. Threlfall	9/15/47—to date
KENTUCKY	A. H. Near	12/1/41—3/22/42
	Maj. Carl W. Ulrich	3/22/42—9/29/42
	Maj. Charles H. Gartrell	9/29/42—6/1/43
	Capt. Howard B. Brown, Jr.	6/1/43—6/23/43
	Lt. Col. William S. Rinehart	6/23/43—3/26/46
	Lt. Col. Charles E. Hall	3/26/46—to date
LOUISIANA	Maj. Byron A. Armstrong	12/1/41—7/13/42
	Col. Ray M. Thomas ²	6/13/42—7/18/42
	Lt. Col. Richard G. Jones	8/18/42—6/20/46
	Lt. Col. William A. Prewitt	6/20/46—to date
MAINE	Col. Guy P. Gannett	12/1/41—to date
MARYLAND	Lt. Col. Arthur C. Hyde	12/1/41—9/12/45
	Lt. Col. Edward R. Fenimore	9/12/45—to date
MASSACHUSETTS	Gordon C. Prince	12/1/41—7/6/42
	Lt. Col. John Shennett	7/1/42—5/20/46
	Lt. Col. Kenneth M. Rose	5/20/46—to date

MICHIGAN	Sheldon B. Steers	12/1/41—7/10/42
	Col. Ray H. Baker	7/10/42—9/25/46
MINNESOTA	Col. Fay M. Thomas	9/25/46—to date
	Maj. Leslie L. Schroeder	12/1/41—8/28/42
	Maj. Horace E. Read	8/28/42—8/14/43
	Lt. Col. Clayton N. Wulff	8/14/43—9/24/46
	Lt. Col. Stafford King	9/24/46—9/5/47
MISSISSIPPI	Lt. Col. Vee L. Phillips	9/5/47—to date
	Mitchell Robinson	12/1/41—5/6/42
	Maj. L. D. Pepper, Jr.	5/6/42—2/6/43
MISSOURI	Col. J. R. Dowd	2/6/43—to date
	Maj. Wm. B. Robertson	12/1/41—1/15/43
	(deceased)	
	Lt. Col. David W. Kratz	1/16/43—7/20/45
	Lt. Col. Kenneth Newland	7/20/45—1/29/46
	Lt. Col. L. W. Greene	1/29/46—8/15/46
MONTANA	Lt. Col. Frank F. Tracy	8/15/46—to date
	Lt. Col. Herman H. Henrickson	12/1/41—8/23/45
	Lt. Col. Roy W. Milligan	8/23/45—9/15/47
NEBRASKA	Lt. Col. Richard A. Kullberg	9/15/47—to date
	Maj. I. V. Packard	12/1/41—7/6/42
	Lt. Col. Harry B. Sidles	7/30/42—9/2/45
NEVADA	Col. Rudy C. Mueller	9/2/45—to date
	Maj. E. J. Questa	12/1/41—9/15/42
	Maj. Carl Johnson	9/15/42—9/27/43
NEW HAMPSHIRE	Col. Eugene H. Howell	9/20/42—to date
	Maj. Russell Hilliard	12/1/41—8/31/42
NEW JERSEY	Col. John F. Brown	8/31/42—to date
	Maj. George A. Viehmann	12/1/42—8/2/43
	Lt. Col. Carroll D. Smith	9/9/43—7/26/45
	Lt. Col. Frank D. Carvin	7/26/45—3/31/46
NEW MEXICO	Lt. Col. B. Hunt Smith	3/31/46—to date
	Maj. Harlee Townsend, Jr.	12/1/41—6/14/43
	Lt. Col. James L. Breese	6/14/43—1/18/46
	Lt. Col. Lewis W. Graham	1/18/46—3/18/47
	Lt. Col. Homer D. Bray	3/18/47—9/15/47
NEW YORK	Lt. Col. Earle W. Stark	9/15/47—to date
	Beckwith Havens	12/1/41—6/15/42
	Maj. Garnet N. Hughes	6/15/42—9/15/42
NORTH CAROLINA	Col. Stuart C. Welch	9/15/42—to date
	Junius M. Horner	12/1/41—6/15/42
	Col. Frank E. Dawson (deceased)	8/16/42—11/10/46
NORTH DAKOTA	Lt. Col. George D. Washburn	1/27/47—to date
	Maj. Arthur M. Sampson	12/1/41—11/9/42
	Maj. W. E. Van Walker	11/9/42—8/10/44
OHIO	Col. Irvan A. Myrah	8/10/44—to date
	Earle L. Johnson	12/1/41—4/1/42
	Col. George A. Stone	4/1/42—6/1/47
OKLAHOMA	Lt. Col. John R. McGuire	6/1/47—to date
	Lt. Col. Moss Patterson	12/1/41—11/28/45
OREGON	Lt. Col. William H. Shockey	11/28/45—to date
	Lt. Col. Leo G. Devaney	12/1/41—12/26/45
	Lt. Col. G. Robert Dodson	12/26/45—7/15/46
PENNSYLVANIA	Col. Harry K. Coffey	7/15/46—to date
	Lt. Col. William L. Anderson	12/1/41—8/18/45
	Lt. Col. Philip F. Neuweiler	8/18/45—3/26/46
	Lt. Col. Carl A. Reber	3/26/46—8/15/47
RHODE ISLAND	Lt. Col. P. F. Neuweiler	8/15/47—to date
	Willard M. Fletcher	12/1/41—7/23/42
	Lt. Col. Norris W. Rakestraw	7/3/42—9/1/46
SOUTH CAROLINA	Lt. Col. Walter P. Jones	9/1/46—to date
	Lt. Col. Dexter C. Martin	12/1/41—1/13/47
SOUTH DAKOTA	Lt. Col. Pride Ratterree	1/13/47—to date
	Lt. Col. T. B. Roberts, Jr.	12/1/41—10/15/45
TENNESSEE	Lt. Col. James R. Barnett	10/15/45—to date
	Lt. Col. Herbert F. Fox	12/1/41—10/15/45
	Lt. Col. William C. Whelen	10/15/45—to date
TEXAS	Col. D. Harold Byrd	12/1/41—to date
UTAH	Col. Joseph S. Bergin	12/1/41—to date
VERMONT	Maj. F. W. Shepardson	12/1/41—11/3/42
	Col. William V. Mason	11/3/42—to date
VIRGINIA	Col. Allan C. Perkinson	12/1/41—to date

WASHINGTON	Maj. Philip H. Hinkley	12/1/41—4/20/44
	Col. Edward R. Schiller	4/20/44—to date
WEST VIRGINIA	Maj. David N. Giltinan	12/1/41—12/7/42
	Lt. Col. Hubert H. Stark	12/11/42—11/1/46
	Lt. Col. J. Hubert Bowers	11/1/46—6/5/47
	Lt. Col. L. E. Farnsworth	6/5/47—to date
WISCONSIN	Seth W. Pollard	12/1/41—3/15/42
	Maj. James B. King ¹	3/15/42—6/25/42
	Lt. Col. John R. Stratton	6/15/42—3/31/46
	Lt. Col. Harry W. Schaefer	3/31/46—to date
WYOMING	Maj. W. Dillard Walker	12/1/41—8/31/43
	Maj. Robert S. King, Jr.	8/31/43—3/14/44
	Lt. Col. Albert W. Dickinson, Jr.	12/28/44—5/20/46
	Maj. W. V. Brinegar	5/20/46—5/14/47
	Lt. Col. Allen H. Chaffee	5/14/47—to date
HAWAII	Lt. Col. Ben S. Dillingham	1/22/47—to date

¹Wing Commanders listed without rank served prior to date CAP commissions first issued. Appointment date of first Wing Commanders of record given as of date of activation of Civil Air Patrol. Ranks listed are highest ranks attained in CAP.

²Ranks as Colonel in Michigan Wing.

³Ranks as Coastal Patrol Base Commander.

APPENDIX C: CIVIL AIR PATROL COMMAND STRUCTURE (as of 31 December 1987)

National Executive Committee

National Commander	Brig. Gen. Eugene E. Harwell, CAP
Executive Director	Col. John T. Massingale, USAF
National Vice Commander	Col. Edgar M. Bailey, CAP
National Chief of Staff	Col. George R. Way, CAP
National Finance Officer	Brig. Gen. Johnnie Boyd, CAP
National Legal Officer	Col. Maurice E. Cook, CAP
CAP Region Commanders	As listed below with Regions

Other Corporate Officials

National Administrator	Brig. Gen. Carl S. Miller, USAF (Ret)
National Controller	Col. June G. Ruth, CAP
Corporate Legal Counsel	Col. Thomas G. Handley, CAP
Asst National Legal Officer	Col. William Carter Younger, CAP
Asst National Legal Officer	Lt. Col. Albert I. Kaufman, CAP
National Historian	Col. Lester E. Hopper, CAP
Chief of Chaplains, CAP	Col. Harold E. Place, CAP

CAP REGIONAL COMMANDERS

Great Lakes Region

Commander	Col. Jack R. Hornbeck, CAP
Illinois Wing Commander	Col. Lawrence F. Lis, CAP
Indiana Wing Commander	Col. Peter C. Crasher, CAP
Kentucky Wing Commander	Col. William K. Hughes, CAP
Michigan Wing Commander	Col. Kenneth C. Redington, CAP
Ohio Wing Commander	Col. Larkin C. Durdin, CAP
Wisconsin Wing Commander	Col. Arthur R. Shanley, CAP

Middle East Region

Commander	Col. David R. Ellsworth, CAP
Delaware Wing Commander	Col. Herbert M. Wood, CAP
Maryland Wing Commander	Col. Kenneth R. Welk, CAP
National Capital Wing Commander	Col. Costello N. Robinson, CAP
North Carolina Wing Commander	Col. Jack D. Moorefield, CAP
South Carolina Wing Commander	Col. Douglas T. Abercrombie, CAP
Virginia Wing Commander	Col. Herman H. Maddox, CAP
West Virginia Wing Commander	Lt. Col. James M. Hazelrigg, CAP

North Central Region

Commander	Col. Gerald S. Holliday, CAP
Iowa Wing Commander	Col. Eugene C. Kellogg, CAP
Kansas Wing Commander	Col. Ralph W. Rissmiller, CAP
Minnesota Wing Commander	Col. Alan Brandon, CAP
Missouri Wing Commander	Col. Joseph D. McMillan, CAP
Nebraska Wing Commander	Col. Richard L. Anderson, CAP
North Dakota Wing Commander	Col. Paul E. Eide, CAP
South Dakota Wing Commander	Col. Jerry A. Hayden, CAP

Northeast Region

Commander	Col. John M. Bertoli, CAP
Connecticut Wing Commander	Col. Howard E. Palmer, CAP
Maine Wing Commander	Col. David J. Braun, CAP
Massachusetts Wing Commander	Col. Donald N. Prouty, CAP
New Hampshire Wing Commander	Col. George G. Heald, CAP
New Jersey Wing Commander	Col. Fredrick G. Camenzind, CAP
New York Wing Commander	Col. Roy I. Arroll, CAP
Pennsylvania Wing Commander	Lt. Col. Raymond F. Schuler, CAP
Rhode Island Wing Commander	Col. Raymond G. Berger, CAP
Vermont Wing Commander	Col. Gary A. Skogebo, CAP

Pacific Region

Commander	Col. Warren J. Barry, CAP
Alaska Wing Commander	Col. Troy G. Sullivan, CAP
California Wing Commander	Col. V. Lee White, CAP
Hawaii Wing Commander	Col. John R. Parrish, Jr., CAP
Nevada Wing Commander	Col. Don L. Schwartz, CAP
Oregon Wing Commander	Col. Earl G. Smith, CAP
Washington Wing Commander	Col. William H. Hamilton, CAP

Rocky Mountain Region

Commander	Col. Virginia E. Smith, CAP
Colorado Wing Commander	Col. Roger E. MacDonald, CAP
Idaho Wing Commander	Lt. Col. Paul G. Dougherty, CAP
Montana Wing Commander	Col. Lance J. Edwards, CAP
Utah Wing Commander	Col. E. Woodrow Walton, CAP
Wyoming Wing Commander	Lt. Col. Darlene G. Gilmore, CAP

Southeast Region

Commander	Col. William C. Tallent, CAP
Alabama Wing Commander	Lt. Col. Glen D. Atwell, CAP
Florida Wing Commander	Col. Richard E. Leighton, CAP
Georgia Wing Commander	Col. James A. Hyde, Jr., CAP
Mississippi Wing Commander	Col. Therrell D. Fortune, CAP
Puerto Rico Wing Commander	Col. John J. Gonzalez, CAP
Tennessee Wing Commander	Col. Charles R. Barksdale, CAP

Southwest Region

Commander	Col. Harold W. Bowden, CAP
Arizona Wing Commander	Col. Dalton O. Smith, CAP
Arkansas Wing Commander	Col. A. G. Melson, CAP
Louisiana Wing Commander	Col. Wallace P. Ansardi, CAP
New Mexico Wing Commander	Col. Larry A. Harrah, CAP
Oklahoma Wing Commander	Col. Fred C. Latchaw, CAP
Texas Wing Commander	Col. Thomas L. Todd, CAP

INDEX

- Ackerly, A. E., 15
 Alabama, 22, 29, 30
 Anderson, Wing Comm. William L., 34, 64
 Arceneaux, Felix, 73
 Arizona, 66, 93, 119
 Arkansas, 73, 75, 99, 100
 Arnold, Gen. Henry H., 10, 18, 22, 23, 45, 81

 Bartholomew, Lt. Margaret, 108-109
 Beaver, Capt. Billy, 27
 Berger, Ben, 11, 20
 Bethel, Lt. Jack, 103
 Binder, Lt. Ralph, 15
 Blee, Col. Harry H., 14, 23, 27, 40, 47-48, 82, 113
 Burnham, Major Isaac W., 2nd, "Tubby", 35
 Byrd, Col. Harold D., 33, 93-94, 116

 California, 24, 32, 58, 60, 62, 66, 80-81, 84-85, 90, 93, 104-105, 112
 Canepha, Lt. Bill, 88, 89
 Cannon, Lt. Harvey P., 20
 Chalow, Lt. Rudie, 17
 Cherry, Lt. Guy, 44
 Coffey, Col. Harry K., 48
 Colorado, 22, 66-69, 77, 84, 93, 100-101, 103, 107, 114, 119
 Connecticut, 9, 99
 Copping, Lt. George, 52
 Cross, Lt. Henry, 19-20
 Curry, Gen. John F., 10, 23, 24, 104, 119

 Dawson, Major Frank E., 58
 Decker, Lt. Rick, 57-58
 Delaware, 27
 District of Columbia, 22, 27, 36, 79, 92, 111, 115-119
 Dornbush, Lt. Lou, 56
 Drapela, Lt. Eddie, 100-101

 Earle, Major Ralph, 41
 Edwards, Lt. Eddie, 12, 19-20

 Fales, Major Lloyd, 39, 60, 61
 Farr, Major Wynant C., 12, 13, 14, 18, 19, 41, 58
 Florida, 9, 10, 11, 17, 18, 20, 22, 30-31, 32, 35, 37, 38-39, 43, 58, 60, 73, 82, 85
 Fort, Cornelia, 104-105
 Fowler, Lt. Jack, 67-68
 Frazier, Lt. Lyman T., 55-57
 Fredrickson, Lt. Arnold, 49-50
 Frost, Capt. S. L. "Jack," 94, 97

 Gardner, Cadet Sgt. Ralph, 75-76
 Georgia, 35, 37, 75
 Gresham, Major Julius, 38, 58, 60
 Grove, Lt. George, 44

 Haggin, Capt. Johnny, 18-19
 Hammett, J. D., 43
 Hinkley, Major Phil, 65-66
 Hirsch, Lt. Mason, 55, 57
 Hlavacek, Lt. Frank, 54
 Hoiriis, Major Holger, 11, 16
 Holderness, Mel, 43
 Hoover, J. Edgar, 76
 Hostetter, Lt. Irvin, 69
 Howell, Wing Comm. Eugene, 86, 87
 Hoyt, Major Kendall K., 71, 72
 Hughes, Major Garnet, 64-65
 Hyatt, Lt. Clifton K., 62

 Idaho, 66
 Illinois, 28, 54, 99, 118
 Indiana, 28, 93, 98, 103
 Iowa, 29, 30

 Jackson, Capt. R. H., 72
 Johnson, Col. Earle L., 14, 24-25, 34, 60, 71, 73, 77, 78, 90, 93, 105, 113, 115, 119

 Kansas, 28, 66, 100
 Keil, Capt. Art, 17
 Kentucky, 22
 King, Capt. Henry, 37, 42
 King, Major James B., 37, 40, 58
 Knight, Milton, 22
 Knox, Lt. Jim, 15
 Koym, Lt. Alfred, 42
 Kramer, Capt. Norman, 83-84
 Krueger, Gen. Walter, 47

 Lancaster, Lt. Richard, 41
 Layland, Capt. Jack, 86, 87, 88, 89
 Lindsay, Lt. John, 40
 Livingston, Lt. Clara, 107
 Louisiana, 9, 31, 35, 39, 73, 99

 McGee, Lt. John, 55, 56, 57
 McGlashan, Base Comm. Ben, 42
 McQueen, Lt. A. O., 96
 Madsen, Major Bill, 66, 67, 68, 119
 Maine, 27, 35, 37, 40-41, 99
 Manning, Tom, 18
 Marshall, Lt. Kermit H., 95, 96
 Maryland, 31, 58, 60, 61, 79, 111, 114
 Mason, William D., 10, 15
 Massachusetts, 79, 93, 99, 103
 Michigan, 29, 31, 34, 37, 70, 73, 74-75, 93, 105-106, 111
 Miller, Lt. Bob, 88-89
 Miller, Capt. George "Buck," 41
 Minnesota, 33, 72, 93
 Mississippi, 31, 33, 43, 93, 99
 Missouri, 22, 29, 30, 93, 112
 Montana, 66
 Moore, Major Jack R., 37, 50-51
 Mosher, Lt. Arthur A., 83
 Mosley, Lt. Col. Zack, 17, 71, 85
 Mueller, Capt. Bill, 84
 Muntz, Capt. Henry, 38
 Muthig, Al, 12
 Myers, Lt. Melvin, 108-109

 Nebraska, 66, 100
 Nevada, 28, 66, 82, 86-90, 102-103
 New Hampshire, 32, 76, 82, 85, 99, 113
 New Jersey, 11-20, 22, 27, 29, 41, 99, 117
 New Mexico, 66, 83-84
 New York, 9, 22, 27, 31, 35, 41, 54-58, 59-60, 64, 69, 77, 99, 103, 107, 111
 North Carolina, 35, 37, 39, 44, 58, 70, 75-76, 91, 114
 North Dakota, 32
 Nowak, Lt. Stella, 107-108

 Ohio, 22, 24-25, 29, 31, 37, 72, 86, 93, 100, 107, 112
 Oklahoma, 33, 66, 98, 100
 Olds, Brig. Gen. Robert B., 65
 Oregon, 37, 59, 66, 93, 110-111

 Pennsylvania, 33-34, 69, 76, 79, 93, 107, 108-109, 119
 Pew, J. Howard, 10

Phelps, Jack 95-96
Puetz, George, 72
Pyle, Capt. Gordon McAlpin, 59-60
Pyle, Mrs. Gordon, 60

Rhode Island, 76, 93, 99
Rich, Major Charles B., 48, 49, 52, 53
Ricksen, Lt. Bob, 41
Rinker, "Doc," 18
Rufus, Lt. Maude, 105-106

Sharp, Major Hugh R., Jr., 11, 16, 19, 20, 44
Shelfus, Lt. Charles, 19
Smith, Capt. Everett M., 16, 17
Smith, Brig. Gen. F. H., Jr., 116
Snow, Major Charles, 84, 85
Souliere, Capt. Raoul, 57
South Carolina, 35, 37, 44
South Dakota, 33, 37, 66
Spaatz, Gen. Carl, 115, 116
Stratemeyer, Brig. Gen. George E., 23
Stewart, Capt. Walter E., 102
Sutherland, Joe, 71
Swift, Lt. Harold O., 20

Taylor, Jim, 42
Tennessee, 93, 104-105, 111
Texas, 22, 31, 33, 35, 37, 38, 41-42, 43-44, 47-53, 58, 66,
84, 93-96, 98, 103, 104, 107, 113, 114
Truman, Pres. Harry S., 115, 116

Utah, 33, 65, 76, 77, 114

Vacek, Jimmy, 103
Vermilya, Major Ike, 17, 22
Vermont, 85, 93
Vilas, Major Jack, 54, 59, 92
Virginia, 13, 35-36, 58, 91, 112

Washington, 58, 61, 62, 65-66, 85, 93
West Virginia, 29, 86, 100
Whipple, Flight Officer, Jim, 49-50
Wilson, Gil Robb, 10, 12, 21-22
Wisconsin, 28, 72, 74, 80, 92,
Wyoming, 66

Zimmerman, Lt. Robert, 80